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ABSTRACT

This monograph presents findings from an analysis of data on international cooperation over a three-year period. Part of a large scale research project to test various theories with regard to their ability to analyze international relations, this monograph reports on the testing of relative status field theory on WEIS conflict data for 1966-1969 for international 'topdogs' in respect to economic development and power (TT behavior). WEIS conflict data (World Event Interaction Survey) is an index which was created using the "New York Times" as a data source. Field theory maintains that international relations consists of all the attributes and interactions of nations, can be analytically divided into attributes and behavior, and exhibits dyad formations (interactions between two nations) in matters of behavior. Relative status field theory presents a break with the status-field theory approach in that it argues that status relationships ought to be treated in relative terms. Scores on variables including domestic violence, population density, economic development, political stability, and power base were compared for approximately 130 nations to determine relative status. The method involved assigning a negative or positive parameter weight on each predictive factor (such as economic development) which indicated the kind of behavior engaged in by that nation relative to other states. A model for each state was generated based on variations of 'topdog'/'underdog' behavior--'topdog' (TT behavior) in this analysis. Findings indicated that 'topdogs' on economic development and power tend to export cooperation to those close to them on these dimensions and that a general world model of cooperation can be developed. Findings are based on a significance level of .05 or less. Policy implications of findings are discussed. (DB)

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ATTRIBUTES AND NATIONAL BEHAVIOR, PART 2: MODERN INTERNATIONAL RELATIONS MONOGRAPH SERIES.
RELATIVE STATUS-FIELD THEORY, RESULTS FOR COOPERATION, TT BEHAVIOR, 1966-69

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PART 2 CONSISTS OF 42 MONOGRAPHS OF A LARGE SCALE PROJECT TESTING SEVERAL ATTRIBUTE, ATTRIBUTE DISTANCE BASED THEORIES. EACH RESEARCH MONOGRAPH IS NUMBERED AND GIVEN A SUB-TITLE, LISTED BELOW. EACH FOCUSES UPON SOME ASPECT OF A LARGE SCALE RESEARCH EFFORT CORRELATING NATIONAL ATTRIBUTES TO INTERNATIONAL BEHAVIOR. ALL MONOGRAPHS CAN BE PRINTED FROM TAPE BY COMPUTER.

TAPE SPECS ARE: 9 TRACK, 800 BPI, EBCDIC, 132 CHARACTER RECORDS, 2400 FEET.

NOTE! SINCE THE CODEBOOK WAS PUBLISHED, MONOGRAPHS 1-6, 10, 27 AND 39 HAVE BEEN FURTHER EDITED, REDUNDANCY REMOVED AND GATHERED TOGETHER UNDER THE TITLE OF: PROJECT THEORY: INTERPRETATIONS AND POLICY RELEVANCE. THIS COLECTION MAY BE FOUND IN FILE 8. SINCE IT IS UPDATED, IT IS RECOMENDED THAT THIS FILE BE USED INSTEAD-OF THE ORIGINAL MATERIALS IN THE APPROPRIATE CASES. IN THE CASE OF THE OTHER FILES, THEY RETAIN THE ORIGINAL BUILT-IN REDUNDANCY.

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NOTE: ALL MONOGRAPHS ON TAPE ARE SET UP TO PRINT ON A UNIVAC DOCUMENT PROCESSOR. SPECIAL PROGRAMS TO ASSIST IN PRINTING ON A DECWRITER II FOR UPPER AND LOWER CASE, DOUBLE SPACE, LENGTH ADJUSTED FOR THE DECWRITER AND WITH FOOTNOTE CAPABILITY, ARE CONTAINED IN MONOGRAPH 26. TABLES OR FIGURES THAT GO BEYOND 80 COLUMNS MAY BE FOLDED IF THE DOCUMENT PROCESSOR IS USED. IF THIS IS UNDESIRABLE, THEY CAN BE PRINTED BY OTHER STANDARD PRINT COMMANDS, SUCH AS AN EDITOR PROGRAM, WHICH CAN PRINT, WITHOUT FOLDING, TO 132 COLUMNS. ALSO, DOCUMENT COMMANDS ARE INVISIBLE IN THE COPY ONLY IF THE DOCUMENT PROCESSOR IS USED. IF OTHER PRINT COMMANDS ARE USED, THE DOCUMENT COMMANDS WILL BE VISIBLE, I.E., WILL APPEAR AS >DOUBLE>, >SPACE>, ETC. AND ARE LEFT JUSTIFIED. IF THEY ARE NOT NEEDED, THEY CAN BE IGNORED OR EDITED OUT. ALL MONOGRAPHS ARE IN MIXED UPPER AND LOWER CASE, EXCEPT MONOGRAPHS 19 AND 26, WHICH ARE IN UPPER CASE ONLY.

Attributes and National Behavior:

Modern International Relations Monograph Series

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RELATIVE STATUS-FIELD THEORY, RESULTS FOR COOPERATION, IT BEHAVIOR, 1966-69XX001

INTRODUCTION

THE PURPOSE OF THIS PAPER IS TO REPORT ON THE TESTING OF RELATIVE STATUS-FIELD THEORY ON WEIS COOPERATION DATA FOR THE YEARS 1966-69 FOR INTERNATIONAL TOPDOGS IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER.

THE WORK REPORTED HERE IS PART OF A LARGER PROJECT WHICH FOCUSES ON WEIS CONFLICT AND COOPERATION DATA FOR THE MID 1960'S USING THE FRAMEWORKS OF ATTRIBUTE, SOCIAL FIELD, STATUS-FIELD, RELATIVE STATUS-FIELD, DISTANCE AND DEVIANCE THEORIES, AS GUIDELINES FOR OPERATIONAL PROCEDURES. SINCE EACH OF THESE THEORIES ARE DEVELOPED ELSEWHERE, THEY WILL NOT BE TREATED FULLY HERE (RUMMEL, 1969,A,B, 1971, VINCENT, 1972, 1973,A,B, 1974, 1975, 1976). THEY CAN, HOWEVER, BE SUMMARIZED IN THE FOLLOWING WAY.

PUT CHART 1 HERE.

FROM THE ABOVE, THE BASIC CORRELATIONAL DESIGN OF EACH THEORY CAN EASILY BE DETERMINED. FOR EXAMPLE, IN USING ATTRIBUTE THEORY, AN INVESTIGATOR CORRELATES THE A-SPACE FACTOR SCORES OF NATIONS WITH THEIR TOTAL BEHAVIOR SCORES TO DETERMINE THE DEGREE OF ASSOCIATION. IN SOCIAL FIELD THEORY, DYADIC A-SPACE DISTANCES ARE CORRELATED WITH MEASURES OF DYADIC BEHAVIOR AND SO FORTH.XX002

SPECIAL TERMS IN THE ABOVE CHART CAN BE DESCRIBED AS FOLLOWS. A-SPACE FACTOR SCORES ARE DERIVED FROM A FACTOR ANALYSISXX003 OF NATIONAL ATTRIBUTE VARIABLES. A-SPACE DISTANCES ARE COMPUTED BY THE FORMULA I-J=D WHERE I IS THE NATION OF CONCERN, J THE OTHER NATION AND D THE DISTANCE. PARTITIONED A-SPACE DISTANCES ARE GENERATED BY DIVIDING THE A-SPACE DISTANCE MATRIX INTO FOUR SEPARATE MATRICES, A TT MATRIX WHERE I IS TOPDOG IN ECONOMIC DEVELOPMENT AND POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, A TU MATRIX WHERE I IS TOPDOG IN ECONOMIC DEVELOPMENT AND UNDERDOG IN POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, A UT MATRIX WHERE I IS UNDERDOG IN ECONOMIC DEVELOPMENT AND TOPDOG IN POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX, AND A UU MATRIX WHERE I IS UNDERDOG IN ECONOMIC DEVELOPMENT AND POWER RELATIVE TO ALL OTHER J'S IN THE MATRIX. D-SPACE FACTOR SCORES ARE DYADIC FACTOR SCORES GENERATED BY FACTOR ANALYZING DISTANCES COMPUTED ON NATION ATTRIBUTES BY THE FORMULA /I-J/=P WHERE I IS THE NATION OF CONCERN, J THE OTHER NATION, AND P THE ABSOLUTE DISTANCE BETWEEN THEM. MEANS OF D-SPACE FACTOR SCORES ARE COMPUTED BY AVERAGING THE DYADIC FACTOR SCORES OF A PARTICULAR DYADIC SET, SUCH AS THE U.S. SET. TOTAL BEHAVIOR REFERS TO THE SUM OF ALL BEHAVIOR (SUCH AS CONFICT BEHAVIOR) EXPORTED TO ALL THE OTHER ACTORS IN THE SYSTEM. DYADIC BEHAVIOR REFERS TO THE BEHAVIORAL EXPORTATIONS OF A DYADIC SET, SUCH AS THE U.S. SET, I.E., THE U.S. EXPORTS TO THE U.S.S.R., TO CHINA, TO FRANCE, ETC. PARTITIONED DYADIC BEHAVIOR REFERS TO EXPORTS OF I TO J'S THAT ARE EITHER TT, UT, TU, OR UU, RELATIVE TO I, IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER.

IN GENERAL, THE PROJECT ATTEMPTS TO DETERMINE THE RELATIONSHIP OF NATIONAL ATTRIBUTES AND ATTRIBUTE DISTANCES TO NATIONAL BEHAVIOR.XX004

THE FOLLOWING LIST GIVES MANY OF THE MAIN PROJECT STEPS.

PUT LIST 1 HERE

LIST 2 GIVES SOME SELECTED ILLUSTRATIVE FINDINGS ON THE ABOVE STEPS.

PUT LIST 2 HERE

HOPEFULLY, THE PROJECT MAY EVENTUALLY SUGGEST CRUCIAL OR PIVOTAL VARIABLES THAT WILL ASSIST IN UNDERSTANDING CONFLICT AND COOPERATION FLOWS IN THE INTERNATIONAL RELATION SYSTEM. THE PURPOSE HERE IS TO REPORT ON MAJOR FINDINGS CONNECTED WITH RELATIVE STATUS-FIELD THEORY, COOPERATION FOR PROJECT STEPS 13 AND 18.

TO FACILITATE FURTHER UNDERSTANDING, IT IS NECESSARY TO TREAT BRIEFLY SOME BACKGROUND CONCERNING STATUS-FIELD AND RELATIVE STATUS-FIELD THEORIES.

STATUS-FIELD THEORY IS ACTUALLY AN AMENDMENT TO SOCIAL FIELD THEORY. IT ATTEMPTS TO INCORPORATE STATUS NOTIONS, SUCH AS THOSE DEVELOPED BY GALTUNG (RUMMEL, 1971), INTO SOCIAL FIELD THEORY, BY MAKING PREDICITONS ABOUT LIKELY COOPERATION AND CONFLICT FLOWS (AND OTHER MATTERS). BASICALLY, THE IDEA IS THAT NATIONS, AS ACTORS WITH STATUS, TEND TO RELATE TO EACH OTHER, AT LEAST IN

PART, IN STATUS TERMS (DEFINED BY NATION LOCATION ON THE FACTORS OF ECONOMIC AND POWER.XX005 THREE THEOREMS HAVE BEEN EXPLORED IN THIS REGARD -THE COOPERATION THEOREM, THE DEVELOPED CONFLICT THEOREM, AND THE UNDERDEVELOPED CONFLICT THEOREM.XX006

PREDICTIONS IN RESPECT TO CONFLICT FLOWS ARE MADE CLEAR BY THE FOLLOWING FIGURE.

PUT FIGURE 1 ABOUT HERE.

IN THE CASE OF THE COOPERATION THEOREM, IF I IS THE NATION OF CONCERN (THE NATION THAT IS EXPORTING THE COOPERATION) THEN I'S BEHAVIOR IS PREDICTED TO VARY, DEPENDING ON WHETHER J, WHO RECEIVES THE BEHAVIOR, IS ABOVE OR BELOW I, IN RESPECT TO STATUS. RUMMEL (1971) HAS IDENTIFIED ECONOMIC DEVELOPMENT AND POWER AS THE STATUS DIMENSIONS. THE COOPERATION THEOREM ARGUES THAT ON BOTH DIMENSIONS, IF J IS ABOVE I, I WILL EXPORT HIGH COOPERATION, WHEREAS, IF J IS BELOW I, I WILL EXPORT LOW COOPERATION. THE BASIS OF RUMMEL'S PREDICTIONS IN THIS REGARD ARE FULLY TREATED ELSEWHERE (RUMMEL, 1971) AND WILL NOT BE REPEATED HERE.

THE CONFLICT THEOREMS ARE SOMEWHAT MORE COMPLICATED, BECAUSE PREDICTIONS VARY DEPENDING ON WHETHER I IS A DEVELOPED OR UNDERDEVELOPED ACTOR AND WHETHER DEVELOPMENT OR POWER IS CONSIDERED. IN THE CASE OF DEVELOPED I'S, IT IS PREDICTED THAT I WILL EXPORT LOW CONFLICT TO J'S ABOVE HIM, BUT HIGH CONFLICT TO J'S THAT ARE BELOW HIM, IN RESPECT TO DEVELOPMENT. ON THE POWER

DIMENSION, THE SITUATION IS REVERSED: I IS PREDICTED TO EXPORT HIGH CONFLICT TO J'S ABOVE HIM AND LOW CONFLICT TO J'S BELOW HIM.

THE UNDERDEVELOPED CONFLICT THEOREM IS A MIRROR IMAGE OF DEVELOPED CONFLICT THEOREM. UNDERDEVELOPED I'S ARE EXPECTED TO EXPORT HIGH CONFLICT TO J'S ABOVE THEM AND LOW CONFLICT TO J'S BELOW THEM, IN RESPECT TO DEVELOPMENT, BUT LOW CONFLICT TO J'S ABOVE THEM AND HIGH CONFLICT TO J'S BELOW THEM IN RESPECT TO POWER.

RELATIVE STATUS-FIELD THEORY PRESENTS A BREAK WITH THE STATUS-FIELD THEORY APPROACH TO THE PROBLEM OF ASSESSING THE IMPACT OF STATUS ON CONFLICT AND COOPERATION BEHAVIOR. FIRST, AND MOST IMPORTANT, IT CALLS FOR THE PARTITIONING OF DYADIC SETS AND IT ARGUES THAT STATUS RELATIONSHIPS OUGHT TO BE TREATED IN RELATIVE TERMS. IN STATUS-FIELD THEORY, A NATION IS CONSIDERED TO HAVE HIGH STATUS IF IT SCORES HIGH ON THE ECONOMIC DEVELOPMENT AND POWER DIMENSIONS.XX007 IN CONTRAST, IN RELATIVE STATUS-FIELD THEORY, IT IS THE RELATIVE LOCATION OF AN ACTOR, NOT HIS ABSOLUTE POSITION, THAT DEFINES HIS STATUS POSITION. USING THE NOTATION OF T = TOPDOG (HIGH STATUS) AND U = UNDERDOG (LOW STATUS), THE THEORY REQUIRES THAT ALL STATUS CONFIGURATIONS -- TT (TOPDOG IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER), TU (TOPDOG IN RESPECT TO ECONOMIC DEVELOPMENT AND UNDERDOG IN RESPECT TO POWER), UT (UNDERDOG IN RESPECT TO ECONOMIC DEVELOPMENT AND TOPDOG IN RESPECT TO POWER), AND UU (UNDERDOG IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER) -BE ANALYZED SEPARATELY FOR EACH DYADIC SET. FOR EXAMPLE, IN TREATING THE FRENCH DYADIC SET, THERE IS A TT RUN (ALL CASES

WHERE FRANCE IS TOPDOG IN RESPECT TO BOTH ECONOMIC DEVELOPMENT AND POWER) A TU RUN (ALL CASES WHERE FRANCE IS A TOPDOG IN ECONOMIC DEVELOPMENT BUT UNDERDOG IN RESPECT TO POWER) AND SO FORTH (FOR THE UT AND UU RUNS). IN CONTRAST, STATUS-FIELD THEORY TREATS ALL DYADIC DISTANCES SIMULTANEOUSLY WITHIN A DYADIC SET. IN OTHER WORDS, STATUS-FIELD THEORY DOES NOT PARTITION A DYADIC SET ACCORDING TO THE TT, TU, ETC., CONFIGURATIONS.

WHEN CORRELATIONAL RUNS ARE COMPLETED IN RELATIVE STATUS-FIELD THEORY, ACROSS ALL PARTITIONED DYADIC SETS, IT IS ARGUED THAT THE CONTRIBUTION OF ECONOMIC DEVELOPMENT AND POWER CAN BE ASSESSED BY COMPARING THE RESULTS AGAINST FOUR THEORETICAL MODELS. THESE ARE:

PUT FIGURE 2 ABOUT HERE.

THE FIRST MODEL INDICATES THAT CLOSENESS IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER CONTRIBUTES TO COOPERATION. IN OTHER WORDS, IF THIS MODEL IS CORRECT, THE UNITED STATES AND GREAT BRITAIN SHOULD EXPERIENCE MORE COOPERATION (BEING CLOSER ON THESE DIMENSIONS) THAN THE U.S. AND CHAD, IN TERMS OF U.S. EXPORTATION OF COOPERATION. THE SECOND MODEL ASSUMES THAT DISTANCE IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER CONTRIBUTES TO COOPERATION. IF THIS MODEL IS CORRECT, USING THE ABOVE EXAMPLE, THE UNTIED STATES SHOULD EXPORT MORE COOPERATION TO CHAD THAN IT DOES TO GREAT BRITAIN. THE OTHER MODELS CAN BE INTERPRETED IN A SIMILAR FASHION, ONLY CLOSENESS ON ONE DIMENSION AND FARNESS ON THE OTHER IS ASSUMED TO BE RELATED TO THE COOPERATION EXPORTATIONS. FOR

EXAMPLE, CONSIDERING MODEL 3, IF IT IS CORRECT, THE UNITED STATES IS EXPECTED TO EXPORT MORE COOPERATION TO KUWAIT (CLOSE TO THE U.S. IN RESPECT TO ECONOMIC DEVELOPMENT, BUT FAR FROM THE U.S. IN RESPECT TO POWER) THAN TO INDIA (FAR FROM THE UNITED STATES IN RESPECT TO ECONOMIC DEVELOPMENT, BUT FAIRLY CLOSE IN RESPECT TO POWER, AS DEFINED BY THE POWER DIMENSION). UNDER MODEL 4, ON THE OTHER HAND, THE UNITED STATES IS PREDICTED TO EXPORT MORE COOPERATION TO INDIA THAN TO KUWAIT.

EACH OF THESE MODELS CAN BE CONVERTED INTO DESCRIPTIVE EQUATIONS WHICH TAKE INTO ACCOUNT THE PARTITIONING OF THE DYADIC SETS. FOR EXAMPLE, IN THE CASE OF MODEL 1, THE EQUATIONS ARE:

PUT FIGURE 3 ABOUT HERE.

THE ABOVE EQUATIONS INDICATE THE EXPECTED PARAMETER SIGNS IF MODEL 1 IS CORRECT. IN THE TI-UU RUN, FOR EXAMPLE, WHERE I IS TOPDOG IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER RELATIVE TO J'S THAT ARE UNDERDOGS ON THESE DIMENSIONS, THE SIGN SHOULD BE NEGATIVE IN BOTH CASES, WITH A = PARAMETER WEIGHT, E = ECONOMIC DEVELOPMENT, AND P = POWER. ON THE UU-TT RUN, HOWEVER, THE SIGN SHOULD BE POSITIVE IF THE MODEL IS CORRECT. THE REASONS FOR THESE SIGN PREDICTIONS, FOR MODEL 1, ARE MADE CLEAR FROM THE FOLLOWING FIGURES.

PUT FIGURE 4 ABOUT HERE.

SIGN PREDICTIONS FOR RELATIVE STATUS-FIELD THEORY CAN BEST BE

UNDERSTOOD IF WE BEGIN WITH THE NATURE OF THE DISTANCE METRIC IN STATUS-FIELD THEORY. IT SHOULD BE APPARENT FROM THE BASIC DISTANCE FORMULA (ALGEBRAIC SUBSTRACTION) THAT WHEN DISTANCE SCORES ARE COMPUTED, J'S ABOVE I RECEIVE NEGATIVE SCORES (INDICATING I IS BELOW THOSE J'S) AND J'S BELOW I RECEIVE POSITIVE SCORES (INDICATING I IS ABOVE THOSE J'S). IF SUCH A METRIC IS HIGHLY CORRELATED WITH THE STANDARDIZED COOPERATION MEASURE AND THE CORRELATION IS POSITIVE THIS MEANS THAT THE J'S ABOVE I WILL HAVE LITTLE COOPERATION EXPORTATION FROM I (MINUSES GO WITH MINUSES) AND J'S BELOW I RECEIVE MUCH COOPERATION EXPORTATION FROM I (PLUSES GO WITH PLUSES). IF THE CORRELATION IS NEGATIVE, THE OPPOSITE IS, OF COURSE, TRUE; ABOVE J'S WILL BE PREDICTED TO RECEIVE MUCH COOPERATION FROM I (MINUSES GO WITH PLUSES) AND J'S BELOW I SHOULD RECEIVE LITTLE COOPERATION EXPORTATION FROM I (PLUSES GO WITH MINUSES).

APPLICATIONS OF RELATIVE STATUS-FIELD THEORY CAN BE UNDERSTOOD IN MUCH THE SAME TERMS. FOR EXAMPLE, IF WE WERE DEALING WITH A U RUN (A PARTITION WHERE I IS AN UNDERDOG) WE CAN THINK OF THE CORRELATION IN THE FOLLOWING TERMS:

PUT FIGURE 5 ABOUT HERE.

A POSITIVE CORRELATION IMPLIES THAT THOSE CLOSE TO I WILL RECEIVE MUCH COOPERATION FROM I AND THOSE DISTANT FROM I (WITH LARGE NEGATIVE SCORES) WILL RECEIVE LITTLE COOPERATION FROM I. AT FIRST THIS MAY SEEM PUZZLING. SUCH A PREDICTION CAN BE UNDERSTOOD

IF IT IS SEEN THAT FROM A CORRELATIONAL PERSPECTIVE, LITTLE NEGATIVE NUMBERS (AFTER STANDARDIZATION) BECOME LARGE POSITIVE NUMBERS, WHILE LARGE NEGATIVE NUMBERS WILL REMAIN LARGE AND NEGATIVE. THUS, FROM A CORRELATIONAL POINT OF VIEW, WHEN THE CORRELATION IS POSITIVE, LARGE NEGATIVES GO WITH LARGE NEGATIVES, AND LARGE POSITIVES GO WITH LARGE POSITIVES. THIS IS WHY IT IS ASSERTED THAT J'S CLOSE TO I WILL BE PREDICTED TO HAVE MUCH COOPERATION AND J'S DISTANT FROM I (LARGE NEGATIVE NUMBERS) WILL BE PREDICTED TO HAVE LITTLE COOPERATION. IN THE CASE OF A NEGATIVE CORRELATION THE OPPOSITE IS PREDICTED, J'S FAR FROM I SHOULD RECEIVE MUCH COOPERATION FROM I AND J'S CLOSE TO I, LITTLE COOPERATION. IT CAN NOW BE SEEN WHY IN MODEL 1, D RUNS ARE ASSIGNED A POSITIVE PARAMETER WEIGHT. THIS IS ANOTHER WAY OF SAYING THAT COOPERATION IS EXPECTED TO INCREASE AS J APPROACHES I IN DISTANCE TERMS.

IN THE CASE OF THE T RUN, WHERE I IS TOPDOG TO THE J'S, THE CORRELATIONAL RELATIONSHIP MAY BE DEPICTED AS:

PUT FIGURE 6 ABOUT HERE.

A POSITIVE CORRELATION IMPLIES J'S FAR FROM I WILL RECEIVE THE MOST COOPERATION, WHILE J'S CLOSE TO I WILL RECEIVE THE LEAST COOPERATION. AGAIN, IT MUST BE UNDERSTOOD THAT THE SMALL POSITIVE NUMBERS BECOME LARGE NEGATIVE NUMBERS AFTER STANDARDIZATION. SUCH NUMBERS, INDICATING THAT THE J'S ARE CLOSE TO I, WILL BE ASSOCIATED WITH SMALL COOPERATION SCORES, INDICATING LITTLE

COOPERATION UNDER A SITUATION OF POSITIVE CORRELATION. LARGE POSITIVE J'S, ON THE OTHER HAND WILL REMAIN LARGE AND POSITIVE AND THUS WILL BE ASSOCIATED WITH THE SCORES INDICATING MUCH COOPERATION. IN THE CASE OF A NEGATIVE CORRELATION THE OPPOSITE, OF COURSE, IS TRUE; J'S CLOSE TO I WILL BE PREDICTED TO HAVE MUCH COOPERATION AND J'S FAR FROM I, LITTLE COOPERATION.

IT SHOULD NOW BE EASY TO SEE WHY, IN MODEL 1, NEGATIVE SIGNS ARE ATTACHED TO T RUNS. (THIS IS ANOTHER WAY OF SAYING THAT J'S CLOSE TO I WILL BE PREDICTED TO HAVE MUCH CONFLICT).

IF THE SIGN CONFIGURATIONS ARE CLEAR FOR MODEL 1, EXACTLY THE SAME LOGIC, OF COURSE, APPLIES TO THE OTHER THREE MODELS. EACH HAS FOUR EQUATIONS, WITH SIGN AFFIXED CONSTSTENT WITH THE MODEL'S ASSUMPTIONS.

RELATIVE STATUS-FIELD THEORY ASSERTS THAT THROUGH THE APPLICTION OF THESE PROCEDURES, THE CONTRIBUTIONS OF ECONOMIC DEVELOPMENT AND POWER TO CONFLICT AND COOPERATION CAN BE REVEALED ACROSS DYADIC SETS. HERE IT STANDS DISTINCT FROM SOCIAL FIELD AND STATUS-FIELD THEORIES, WHICH SEEM TO LIMIT THEIR PERSPECTIVE TO INDIVIDUAL DYADIC SETS, EACH WITH A SEPARATE PREDICTIVE FORMULATION. IT IS TRUE THAT EACH PARTITION OF A DYADIC SET RECEIVES A SEPARATE PREDICTIVE FORMULATION IN RELATIVE STATUS-FIELD THEORY. HOWEVER, THE PURPOSE IS TO ESTABLISH GENERAL MODELS, CUTTING ACROSS THE DYADIC SETS, BY COMPARING EMPIRICAL RESULTS WITH THE SIGN MODELS, SUCH AS GIVEN IN MODEL 1. THIS IS ACCOMPLISHED BY ASSIGNING A PARAMETER WEIGHT OF 1 TO EACH EQUATION AND DETERMINING THROUGH THE CITY BLOCK TECHNIQUEXXOOR THAT MODEL WHICH DEVIATES LEAST FROM

OBSERVED RESULTS. FOR EXAMPLE, IT IS CLEAR THROUGH SIMPLE INSPECTION THAT THE RESULT OF (-.7E) + (-.8P) IN A IT RUN (SAY, FOR FRANCE) COMES CLOSER THAN (-.7E) (+.8P) TO MEETING MODEL 1 ((-.AE) + (-.AP)). (-.7E) + (+.8P), HOWEVER, COMES CLOSER TO MODEL 3 ((-AE) + (+AP)) (INDICATING THAT CLOSENESS IN RESPECT TO ECONOMIC DEVELOPMENT AND FARNESS IN RESPECT TO POWER PREDICTS COOPERATION) THAN (-.7E) + (-.8P).

EACH MODEL, THEN, THROUGH THESE TECHNIQUES CAN BE COMPARED ACROSS THE DYADIC SETS AND VARIOUS CATEGORIES OF ANALYSIS, SUCH AS AFRICAN, EUROPEAN, ETC., CAN BE USED TO SEE IF THE MODELS VARY BETWEEN SUCH CATEGORIES.

TO SUMMARIZE, RELATIVE STATUS-FIELD THEORY WORKS WITH RELATIVE POSITION ON ECONOMIC DEVELOPMENT AND POWER TO ALLOW FOUR DIFFERENT ANALYSES OF EACH DYADIC SET, I.E., IT, TU, UT, AND UU RUNS. PARAMETER WEIGHTS ARE COMPARED WITH THE FOUR MODELS OF CONFLICT ACROSS DYADIC SETS TO DETERMINE THE CONTRIBUTIONS OF ECONOMIC DEVELOPMENT AND POWER (THE STATUS DIMENSIONS) TO CONFLICT AND COOPERATION. BECAUSE OF THE COMPLEXITY OF THE ANALYSIS, HOWEVER, ONLY IT ACTORS WILL BE ANALYZED HERE. THE RESULTS FOR THE OTHER STATUS COMBINATIONS WILL BE FOUND IN OTHER PAPERS.

IN TECHNICAL TERMS, THEN, THE PURPOSE OF THE PAPER ARE TO: (1) PRESENT THE WEIGHTS AND SIGNS FOR EACH STATE (WHERE POSSIBLE) GENERATED BY APPLYING RELATIVE STATUS-FIELD THEORY TO WETS COOPERATION DATA, (2) EVALUATE THE WEIGHTS AND SIGNS IN TERMS OF

ATTRIBUTE THEORY (EXPLAINED BELOW), AND (3) CONSTRUCT A GENERAL MODEL, FROM THE CANONICAL ANALYSIS, FOR THE STATE SYSTEM AS A WHOLE FOR TI BEHAVIOR.

THE MAKE THE ANALYSIS MEANINGFUL IT IS FIRST NECESSARY TO (1) PRESENT THE MAJOR FEATURES OF AN A-SPACE ANALYSIS AND (2) DISCUSS FEATURES OF THE WEIS CONFLICT DATA COLLECTION.

CONSTRUCTING A-SPACE.

THE VARIABLES OF A-SPACE WERE TAKEN, FOR THE MOST PART, FROM THE CROSS-POLITY TIME SERIES (BANKS, 1971) AND THE WORLD HANDBOOK OF POLITICAL AND SOCIAL INDICATORS (TAYLOR AND HUDSON, 1971). THE EXACT VARIABLE LIST WILL SHORTLY. VARIABLES WERE SELECTED ON THE FOLLOWING GROUNDS: FIRST, THEY HAD TO CLEARLY PERTAIN TO THE ATTRIBUTES OF STATES. SECOND, THE INFORMATION (TOTAL COLLECTION USED) WAS REQUIRED TO BE 90% COMPLETE. WHERE INFORMATION WAS MISSING, OR AMBIGUOUS, REGRESSION ESTIMATES WERE USED. THE REGRESSION ESTIMATE ROUTINE EMPLOYED SEARCHES THE ENTIRE COLLECTION OF VARIABLES TO FIND THAT VARIABLE ON WHICH THE SUBJECT HAS INFORMATION MOST CLOSELY RELATED TO THE VARIABLE ON WHICH THE INFORMATION IS MISSING. SIMPLE REGRESSION IS THEN USED TO ESTIMATE THE MISSING VALUE. SINCE MANY VARIABLES HAD SKEWED DISTRIBUTIONS, A RANK TRANSFORMATION WAS ALSO EMPLOYED. THUS, NUMBER SEQUENCES, SUCH AS 1 3 7, WERE CHANGED TO SEQUENCES SUCH AS 1 2 3. THIS TRANSFORMATION GIVES BASIC AGREEMENT BETWEEN THE MEAN AND MEDIAN

OF A DISTRIBUTION, SO THAT THERE ARE AS MANY CASES ABOVE THE MEAN AS BELOW IT.

THE FOLLOWING PRESENTS AN ANALYSIS OF THE ROTATED LOADINGS OF A-SPACE. THAT IS, A-SPACE WAS GENERATED BY FACTOR ANALYZING 144 ATTRIBUTE VARIABLES, WHICH RESULTED IN 22 FACTORS. SELECTED FACTOR LOADINGS ARE LISTED WITH THE VARIABLE NAMES, FOLOWED BY A LIST OF ALL THE FACTORS.

PUT TABLE 1 ABOUT HERE

THE ABOVE, THEN, COMPLETES THE CONSTRUCTION OF A-SPACE. THE FACTOR SCORES OF THIS SPACE ARE USED TO GENERATE THE ATIRIBUTE DISTANCES FOR THE TESTS OF RELATIVE STATUS-FIELD THEORY AND WILL ALSO BE USEFUL IN THE INTERPRETATION OF THE RESULTS.

THE NEXT STEP REQUIRED TO TEST RELATIVE STATUS-FIELD THEORY IS TO SCORE EACH DYAD IN RESPECT TO IT'S COOPERATION.

WEIS DATA MANUPULATIONS.

THE WEIS COLLECTION IS HIGHLY SUITED FOR THE RESEARCH PURPOSES. IN THE COLLECTION NUMEROUS MEASURES OF CONFLICT AND COOPERATION ARE SCORED FOR VIRTUALLY EVERY STATE OVER A CONSIDERABLE TIME PERIOD (MCCLELLAND, 1972). ONE PROBLEM IN BUILDING GENERALIZATIONS FROM THIS COLLECTION, HOWEVER, IS THE DEGREE OF SPECIFICITY WHEN ONE FOCUSES UPON ANY PARTICULAR MEASURE. THE

MAJORITY OF STATES TEND TO HAVE 0 SCORES REGARDLESS OF WHAT CATEGORY IS PICKED IN THE COLLECTION. SUCH SCORES, IF USED IN CORRELATIONAL ANALYSES, THEN, ARE HIGHLY NON-NORMAL AND MOST ENTRIES ARE 0. IN APPARENT RECOGNITION OF THIS PROBLEM, THE WEIS SCHOLARS HAVE ATTEMPTED TO DEVELOP SOMEWHAT MORE GENERAL CATEGORIES BY GROUPING HIGHLY SIMILAR ACTS, AND, FOR OUR PURPOSES, 12 CLASSIFICATIONS OF CONFLICT AND 8 CLASSIFICATIONS OF COOPERATION WERE SELECTED.

PUT TABLE 2 ABOUT HERE.

CONFLICT AND COOPERATION EXPORTATIONS ARE STILL RELATIVELY INFREQUENT EVENTS, IN THE SENSE THAT A DYADIC MATRIX, 16,256 (128 TIMES 127 = 16,256) BY THE NUMBER OF COOPERATION OR CONFLICT VARIABLES CONSIDERED, HAS AN EXTREMELY LARGE PROPORTION OF ZERO ENTRIES. A THREE-YEAR PERIOD WAS EMPLOYED TO FURTHER REDUCE THE NUMBER OF SUCH ENTRIES. TO CREATE A STILL FURTHER REDUCTION, ALL OF THE CONFLICT VARIABLES (12 IN NUMBER) WERE REDUCED TO A SINGLE VECTOR AND LIKEWISE FOR THE COOPERATION VARIABLES (8 IN NUMBER). THAT IS, TO APPLY CORRELATION TECHNIQUES TO THE ORIGINAL CONFLICT VARIABLES, BECAUSE OF THE EXTREMELY SKEWED CHARACTER OF THE DISTRIBUTIONS, COULD UNDERCUT THE VALIDITY OF THE ANALYSIS. IN ORDER TO COMBINE THE VARIABLES INTO A SINGLE INDEX, 30 JUDGES, STUDENTS AND PROFESSORS WERE EMPLOYED TO RATE EACH OF THE VARIABLES IN TERMS OF INTENSITY ON A 5-POINT SCALE. THE INTENSITY,

MEASURED BY THE JUDGE MEAN RESPONSES (GIVEN ABOVE) WERE THEN USED AS WEIGHTS TO SUM THE VARIABLES.

OBVIOUSLY, IT IS NOT POSSIBLE TO LIST ALL 16,000+ DYADIC SCORES. BUT, A FEELING OF THE DATA MAY BE OBTAINED BY LISTING A SUMMARY INDEX OF THE TOTAL COOPERATION FOR EACH STATE, OBTAINED BY SUMMING ALL NUMBERS IN EACH PART OF THE VECTOR FOR EACH STATE.

PUT TABLE 3 ABOUT HERE.

THE STAGE IS NOW SET FOR APPLYING AND INTERPRETING RELATIVE STATUS-FIELD THEORY RESULTS ON THE DATA. 44 CORRELATION RUNS WERE MADE USING THE PARTITIONED DISTANCE MATRICES (TI SETS) COMPUTED FROM THE A-SPACE FACTOR SCORES (TOTAL DISTANCE MATRIX = 16,256 X 22) AND THE MATCHING WEIS TI DYADIC VECTOR (TOTAL BEHAVIOR VECTOR = 16,256 X 1).

FINDINGS: CANONICAL CORRELATIONSXX009

THE FOLLOWING ANALYSIS PRESENTS THE CANONICAL CORRELATION RESULTS. EACH COUNTRY IS LISTED WITH ITS CANONICAL CORRELATION IN TERMS OF DESENDING MAGNITUDE. FOR EXAMPLE, LIBYA HAS THE HIGHEST CANONICAL CORRELATION, .92. ALL OTHER STATES EXPORTED LITTLE OR NO CONFLICT, OR, LESS THAN 30 CASES WERE SELECTED TO FORM THE TI SET AND, THEREFORE, SUCH SETS WERE NOT ANALYZED.

PUT TABLE 4 ABOUT HERE.

OBVIOUSLY, RELATIVE STATUS-FIELD THEORY, WHERE A IT ANALYSIS WAS POSSIBLE, DOES NOT APPLY EQUALLY TO ALL STATES. WE MAY, HOWEVER, USE ATTRIBUTE THEORY TO ATTEMPT TO DISCERN ANY PATTERNS IN THESE CORRELATIONS. THAT IS, WE CAN CORRELATE THE FACTOR SCORES OF A-SPACE WITH THE CANONICAL CORRELATION RESULTS. IT SHOULD BE CLEAR THAT WE ARE ATTEMPTING TO DETERMINE IF THE MAGNITUDES OF THE CORRELATIONS ARE RELATED TO NATIONAL ATTRIBUTES AND THAT THE CORRELATIONS, THROUGH THESE METHODS, ARE NOT STATISTICALLY DEPENDENT ON THE ATTRIBUTES, IE., ANY IT STATE HAS THE POTENTIAL TO HAVE A HIGH OR LOW MAGNITUDE. WHEN THIS IS DONE WE OBTAIN: ECONOMIC DEVELOPMENT (.64), POWER BASE (.57) AND FEW EXECUTIVE ADJUSTMENTS (-.31), R=.73, P=.0000. THUS, THE HIGHER THE ECONOMIC DEVELOPMENT, POWER BASE AND THE MORE EXECUTIVE ADJUSTMENTS OF A STATE, THE HIGHER ITS CANONICAL CORRELATION TENDS TO BE. TO PUT IT ANOTHER WAY, RELATIVE STATUS-FIELD THEORY (IT ANALYSIS) HAS THE MOST RELEVANT FOR STATES WITH SUCH CHARACTERISTICS BUT LESS RELEVANCE FOR STATES WITH THE OPPOSITE CHARACTERISTICS. IN THIS CONNECTION, A CRUCIAL QUESTION CONCERNS WHETHER OR NOT THE THEORY IS SIGNIFICANT OVERALL. WHENEVER MANY CORRELATIONS ARE COMPUTED AN AVERAGE EXPECTED CORRELATION CAN BE COMPUTED IN TERMS OF N, THE NUMBER OF SUBJECTS, AND V, THE NUMBER OF VARIABLES. WE MAY THEN COMPARE THEORETICAL EXPECTATIONS WITH ACTUAL RESULTS AND DRAW A CONCLUSION.

THE FOLLOWING CHART COMPARES THE THEORY ON THIS AND OTHER IMPORTANT MATTERS.

NUMBER OF CORRELATIONS REFERS TO THE NUMBER OF DYADIC SUB-SETS THAT WERE ANALYZED.

N OF CORRELATIONS REFERS TO THE ACTUAL NUMBER OF DYADS ANALYZED.

RANGE OF CORRELATIONS REFERS TO THE CANONICAL CORRELATION MAGNITUDES, MAXIMUM AND MINIMUN, FOR THE NUMBER OF CORRELATIONS ATTEMPTED.

EXPECTED CORRELATIONS REFER TO THE EXPECTED AVERAGE CORRELATIONS WHEN A LARGE NUMBER OF CORRELATIONS ARE RUN USING DIFFERENT V'S AND N'S. THIS IS THIS IS BASED ON THE FORMULA V-I/N-I=SQUARE OF THE EXPECIED CORRELATION.XX010

NUMBER ABOVE EXPECTED CORRELATION INDICATES THE ACTUAL NUMBER OF CORRELATIONS WHICH EXCEEDED THE EXPECIED VALUE.

PERCENT ABOVE EXPECTED CORRELATION IS FOUND BY DEVIDING ROW ENTRY 5 BY ROW ENIRY 1.

EXPECTED AVERAGE SQUARE REFERS TO THE EXPECTED CORRELATION SQUARED, AS COMPUTED FROM THE ABOVE FORMULA.

ACTUAL AVERAGE SQUARE REFERS TO THE ACTUAL RESULTS IN AVERAGE CORRELATION SQUARED TERMS.

AVERAGE SQUARE ABOVE EXPECIED SQUARE REFERS TO THE DEGREE TO WHICH THE AVERAGE EXPECIED SQUARE WAS EXCEEDED.

TOTAL DYADS CONSIDERED REFERS TO ALL OF THE DYADS ACROSS ALL OF THE ANALYSES.

COLUMN SUMS OF SQUARES OF CANONICAL CORRELATIONS REFERS TO THE AGGREGATE FIGURE OBTAINED WHEN THE CANONICAL CORRELATIONS ARE SQUARED AND THEN SUMMED. THE FIGURE OBTAINED IS THE AGGREGATE VARIANCE EXPLAINED.

PERCENT OF TOTAL VARIANCE OF THEORETICAL MAXIMUM REFERS TO THE COLUMN SUMS OF SQUARES OF THE CANONICAL CORRELATIONS DEVIDED BY THE NUMBER OF CORRELATIONS. SINCE THE MAXIMUM CORRELATION IS 1.0 AND THE SQUARE OF 1.0 IS EQUAL TO 1.0, THE THEORETICAL MAXIMUM, IN VARIANCE EXPLAINED TERMS, IS EQUAL TO THE NUMBER OF CORRELATIONS.

PUT TABLE 5 ABOUT HERE.

IT MAY BE CONCLUDED FROM THIS CHART, THAT, RELATIVE STATUS-FIELD THEORY, OVERALL, EXCEEDS CHANCE EXPECTATIONS. ALSO, THE MAGNITUDES OF THE CORRELATIONS ARE RELATED TO CERTAIN STATE CHARACTERISTICS, AS DESCRIBED ABOVE.

FINDINGS: CANONICAL WEIGHTS

THE FOLLOWING PRESENTS THE RESULTS FOR THE CANONICAL CORRELATION WEIGHTS. ALTHOUGH REFERRED TO AS WEIGHTS, IN FACT, THESE ENTRIES ARE CORRELATIONS OF THE VARIABLES IN QUESTION WITH THE CANONICAL VARIATE SCORES GENERATED IN THE CANONICAL ANALYSIS. THE TERM WEIGHTS IS USED TO AVOID CONFUSION WITH THE OUTPUT OF CANONICAL CORRELATIONS THEMSELVES. FOR EXAMPLE, IN THE CASE OF ALGERIA THE ENTRY OF -.26, IN THE SECOND COLUMN, INDICATES THAT POWER BASE IS CORRELATED -.26 WITH THE CANONICAL VARIATE SCORES GENERATED IN THE ANALYSIS. IN THIS CASE, WE PREDICT THAT THOSE DYADS THAT STAND LOW ON POWER BASE DISTANCE ALSO STAND HIGH ON THE

CANONICAL VARIATE SCORES. IF THE CORRELATION IS POSITIVE, AS IN THE CASE OF THE SIXTH COLUMN, SMALL POPULATION DENSITY (.52), WE PREDICT THAT THOSE DYADS STANDING HIGH ON THIS FACTOR WILL TEND TO STAND HIGH ON THE CANONICAL VARIATE SCORES. ALL TWENTY-TWO ENTRIES CAN BE INTERPRETED IN THIS WAY.

THE LAST ENTRY, THE TWENTY-THIRD, 1.05 IN THE CASE OF ALGERIA, INDICATES THE AGGREGATE VARIANCE FOR ALL TWENTY-TWO FACTORS. IN THIS WAY, STATES CAN BE COMPARED ACROSS ANALYSES. IF THE NUMBER IS LARGE, THE CORRELATIONS TEND TO BE LARGE WHILE, OF COURSE, IF THE NUMBER IS SMALL, THEY TEND TO BE SMALL. THUS, IS LISTED.

THE ENTRIES UNDER COLUMN SUMS OF SQUARES INDICATE THE IMPORTANCE OF THE FACTORS IN AGGREGATE VARIANCE TERMS. FOR EXAMPLE, IN SUCH TERMS, POWER BASE WAS MORE THAN TWICE AS IMPORTANT AS ECONOMIC DEVELOPMENT, 4.62 VS 1.87.

PUT TABLE 6 ABOUT HERE.

SELECTED WEIGHTS WERE THEN SORTED IN TERMS OF DESCENDING MAGNITUDE FOR THREE FACTORS. IN THE CASE OF THE FIRST FACTOR, ECONOMIC DEVELOPMENT, ALL STATES WITH POSITIVE WEIGHTS, THAT IS, FROM SOUTH AFRICA DOWN THROUGH ALGERIA TENDED TO EXPORT COOPERATION TO COUNTRIES THAT ARE DISTANT FROM THEM IN RESPECT TO ECONOMIC DEVELOPMENT. COUNTRIES WITH NEGATIVE WEIGHTS, THAT IS, FROM UNITED STATES THROUGH SPAIN TENDED TO EXPORT CONFLICT TO STATES THAT ARE CLOSE TO THEM IN RESPECT TO ECONOMIC DEVELOPMENT.

THE SAME KIND OF INTERPRETATION PERTAINS TO THE POWER BASE AND NON-COMPETITIVE POLITICAL SYSTEM FACTORS, ADJUSTING FOR THE FACT THAT J CAN BE ABOVE OR BELOW I ON NON-COMPETITIVE POLITICAL SYSTEM.

PUT TABLE 7 ABOUT HERE.

AGAIN THE QUESTION ARISES, ARE THESE PATTERNS DESCRIBABLE IN TERMS OF ATTRIBUTE THEORY? SPACE DOES NOT PERMIT ANALYZING ALL THE DIMENSIONS IN THESE TERMS BUT AN ANALYSIS CAN BE PRESENTED FOR THE THREE SELECTED FACTORS.

THE FOLLOWING PRESENTS THE RESULTS OF CORRELATING A-SPACE FACTOR SCORES WITH + OR - WEIGHTS GENERATED FROM CANONICAL CORRELATIONS USED IN TESTING THE THEORIES. FOR EXAMPLE, IF THE POSITIVE WEIGHTS OF THE FACTOR OF POWER ARE UNDER CONSIDERATION, AND, ECONOMIC DEVELOPMENT CORRELATES .50 WITH THE POWER WEIGHTS, WE CAN CONCLUDE THAT, IN RESPECT TO THOSE THAT HAVE POSITIVE WEIGHTS ON POWER, THE HIGHER THE ECONOMIC DEVELOPMENT OF THE NATION THE MORE LIKELY IT WILL HAVE A LARGE WEIGHT. THE PURPOSE OF SUCH AN ANALYSIS IS TO SEE WHETHER THE MAGNITUDES OF THE WEIGHTS GENERATED FROM THE VARIOUS THEORIES ARE EXPLAINABLE IN TERMS OF ATTRIBUTE THEORY. AGAIN, IT SHOULD BE CLEAR THAT THERE IS NO NECESSARY RELATIONSHIP BETWEEN THE ATTRIBUTES AND THE OUTCOME OF A + OR - SIGN FOR IT STATES AND, THUS, SUCH AN ANALYSIS IS POSSIBLE.

PUT TABLE 8 ABOUT HERE.

USING THE FACTOR NUMBERS, GIVEN BELOW, 1=ECONOMIC DEVELOPMENT ETC., THE RESULTS MAY BE SUMMARIZED AS FOLLOWS:

PUT FIGURE 7 ABOUT HERE.

THUS, LIKE THE CANONICAL CORRELATIONS THEMSELVES, THE WEIGHTS GENERATED ON THE FACTOR DIMENSIONS OF D-SPACE APPEAR PARTIALLY PREDICTABLE IN TERMS OF ATTRIBUTE THEORY.

ANOTHER APPROACH IS TO EXAMINE THE INFORMATION IN TERMS OF AN F-TEST OF MEAN DIFFERENCES.

THE SIGNIFICANT F-TEST RESULTS, .05 LEVEL, MEANS OF NEGATIVE V. POSITIVE WEIGHT SUBJECTS ARE GIVEN IN TABLE 9. CONSIDERING THE FIRST CASE, ECONOMIC DEVELOPMENT, THE SELECTED FACTOR WAS LARGE GNP GROWTH RATE AT FIXED PRICES (10). THE F-RATIO WAS 5.2678 AND THE PROBABILITY .0255. THE GROUP MEANS ON THIS FACTOR WERE -.1993 (- WEIGHT SUBJECTS) AND .5721 (+ WEIGHT SUBJECTS).

PUT TABLE 9 ABOUT HERE.

AGAIN, WE MAY SUMMARIZE THE FINDINGS THROUGH A FIGURE:

PUT FIGURE 8 ABOUT HERE.

THIS FURTHER SUBSTANTIATES THE ABOVE FINDING THAT THE CANONICAL

PATTERNS ARE PARTIALLY PREDICTABLE IN TERMS OF ATTRIBUTES.

FINDINGS: GENERAL MODEL

ALTHOUGH A MODEL FOR, AND, THE RELEVANCE OF, RELATIVE STATUS-FIELD THEORY FOR EACH STATE HAS BEEN GENERATED BY PRESENTATION OF THE WEIGHTS AND CANONICAL CORRELATIONS GIVEN ABOVE, A WORLD MODEL HAS NOT YET BEEN DISCUSSED OR PRESENTED. FOLLOWING THE METHODS DISCUSSED ABOVE, WE OBTAIN FOR THE >WORLD>:

PUT TABLE 10 ABOUT HERE.

WE CAN NOW LIST THE FACTORS AND INDICATE WHETHER DISTANCE OR CLOSENESS CONTRIBUTES TO COOPERATION CONSIDERING THE WORLD SYSTEM AS A WHOLE. IN THIS CONNECTION WE MUST FOLLOW SOCIAL FIELD THEORY RULES FOR INTERPRETING SIGNS ON DIMENSIONS OTHER THAN ECONOMIC DEVELOPMENT AND POWER SINCE SUCH DIMENSIONS WERE NOT PARTITIONED ON IT, OT ETC. LINES.

THE SOCIAL FIELD THEORY RULES ARE:

PUT FIGURE 9 ABOUT HERE.

ON THE STATUS DIMENSIONS, THEN, THE CODE >DISTANT> OR >CLOSE> WILL BE USED WHILE ON THE REMAINING DIMENSIONS THE CODE >FAR ABOVE> OR >FAR BELOW> BE USED. THAT IS, THESE CODES IDENTIFY THE CHARACTERISTICS OF J'S (IN DISTANCE TERMS) RECEIVING THE MOST

COOPERATION FROM IT I'S IN THE WORLD SYSTEM.

PUT TABLE 11 ABOUT HERE.

IT MAY BE CONCLUDED THAT ASSERTIONS ABOUT DISTANCE AS A PREDICTOR OF COOPERATION FOR THE WORLD, MUST BE CAST IN FACTOR SPECIFIC TERMS. RETURNING TO OUR MODELS FOR RELATIVE STATUS-FIELD THEORY, HOWEVER, WE SEE THAT THE CONDITIONS FOR MODEL 1 ARE MET. TOPDOGS IN THE SYSTEM ON ECONOMIC DEVELOPMENT AND POWER TEND TO EXPORT COOPERATION TO J'S CLOSEST TO THEM ON THESE DIMENSIONS.

SUMMARY

FROM THE ABOVE INVESTIGATION THE FOLLOWING APPEARS ESTABLISHED FOR 71 ACTORS: (1) STATE DISTANCES IN A-SPACE ARE RELATED TO COOPERATION EXPORTATION (AS MEASURED BY WEIS DATA), (2) THESE RELATIONSHIPS, OVERALL, TEND TO EXCEED CHANCE EXPECTATIONS (TABLE 5), (3) THE RELEVANCE OF THE THEORY FOR EACH STATE VARIES (TABLE 4) BUT THE MAGNITUDES OF THE CORRELATIONS ARE PREDICTABLE, IN PART, FROM ATTRIBUTES (TABLE 4, DISCUSSION), (4) PARAMETER WEIGHTS FOR EACH STATE CAN BE ESTABLISHED ON THE THE DISTANCES OF A-SPACE (TABLE 6) AND THE MAGNITUDES ARE RELATED TO ATTRIBUTES (TABLE 8, FOR SELECTED FACTORS). IN THIS CONNECTION, + WEIGHT NATIONS TEND TO BE DIFFERENT FROM - WEIGHT NATIONS (TABLE 9, FOR SELECTED FACTORS), AND, (5) FROM THE INDIVIDUAL PARAMETER WEIGHTS, A

GENERAL WORLD MODEL CAN BE DEVELOPED (TABLE 10) AND THE IMPLICATIONS OF DISTANCE FOR COOPERATION EXPORTATIONS CAN BE ESTABLISHED (TABLE 11). TOPDOGS ON ECONOMIC DEVELOPMENT AND POWER TEND TO EXPORT COOPERATION TO THOSE CLOSE TO THEM ON THESE DIMENSIONS.

THESE FINDINGS ARE A STARTING POINT RATHER THAN AN ENDING AS FAR AS RESEARCH IS CONCERNED. WILL THESE RELATIONSHIPS HOLD UP IN NEW TIME PERIODS ON NEW DATA SETS? CAN THE CONCEPT OF CAUSE, AS OPPOSSED TO CORRELATION, BE CLEARLY DELINEATED IN THE SOCIAL SCIENCES SO THAT PRESCRIPTIONS CAN BE SOUNDLY BASED ON THE FORMER (ASSUMING CAUSE, ITSELF, IS A VIABLE CONCEPT)? CLEARLY, BOLDLY STATED PRESCRIPTIONS ARE NOT IN ORDER AT THIS TIME. ON THE OTHER HAND, CORRELATIONAL PATTERNS HAVE STRONGLY EMERGED IN THIS STUDY AND MAY BE RELEVANT TO COOPERATION MANAGEMENT IN THE I.R. SYSTEM. INSIGHTS IN THIS REGARD, HOPEFULLY, MAY BE FACILITATED AS ANALYSES ARE EVALUATED ON UT, TU AND UU EXPORTATION CONFIGURATIONS.

NOTES :

(1). THE ASSISTANCE OF JIM SLITOR, WES KRANTZ AND CAROL JONES WAS GREATLY APPRECIATED.

(2). DISTANCE HAS BEEN MEASURED IN TWO WAYS IN THE THEORIES. ABSOLUTE DISTANCE IS A MEASURE OF THE DISTANCE BETWEEN TWO NATIONS ON A VARIABLE BASED ON THE FORMULA: $D = /I-J/$. FOR EXAMPLE, IF NATION I = +5 AND NATION J = +2, THE DISTANCE BETWEEN THEM IS +3. HOWEVER, IF I = +2 AND J = +5, THE DISTANCE BETWEEN THEM REMAINS +3. THIS MEASURE, THEN, MEASURES DISTANCE, REGARDLESS OF DIRECTION, AND ALL DISTANCE WILL HAVE A POSITIVE SIGN. THIS METRIC FINDS ITS USE IN DISTANCE THEORY.

ALGEBRAIC DISTANCE IS A MEASURE OF THE DISTANCE BETWEEN TWO NATIONS ON A VARIABLE, BASED ON THE FORMULA: $D = I-J$. FOR EXAMPLE, IF NATION I = +5 AND NATION J = +2, THE DISTANCE BETWEEN THEM IS +3. BUT, IF I = +2 AND J = +5, THE DISTANCE IS -3. THIS METRIC, THEN, MEASURES WHETHER I IS ABOVE OR BELOW J. IF I IS ABOVE J, THE DISTANCE VALUE WILL HAVE A + SIGN. IF I IS BELOW J, THE DISTANCE WILL HAVE A - SIGN. THIS MEASURE OF DISTANCE IS USED IN SOCIAL FIELD AND STATUS-FIELD THEORIES.

(3). FACTOR ANALYSIS REFERS TO CERTAIN MATHEMATICAL TECHNIQUES, THE PURPOSE OF WHICH IS TO REDUCE A LARGE NUMBER OF INDICES (VARIABLES) INTO A SMALLER NUMBER OF FACTORS. FACTORS MAY BE VIEWED AS INTERVENING VARIABLES WHICH EMERGE FROM THE PATTERN OF

INTERCORRELATION AMONG INDICES. VARIOUS TECHNIQUES OF FACTOR EXTRACTION HAVE BEEN EMPLOYED. IN THE PRINCIPAL AXIS METHOD, OPERATIONS ARE PERFORMED UPON A MATRIX CONSISTING OF THE INTERCORRELATIONS OF THE INDICES WITH ONE ANOTHER. THE FIRST >FACTOR> (OR >COMPONENT>) IS THAT WHICH ACCOUNTS FOR THE GREATEST PROPORTION OF THE INTERCORRELATIONS. SUCCESSIVE OPERATIONS UPON SUCCESSIVE, RESIDUAL MATRICES GENERATE THE SECOND FACTOR, THE THIRD FACTOR, ETC. EACH FACTOR IS MATHEMATICALLY DEFINED SO THAT IT IS ORTHOGONAL TO THE OTHER FACTORS. EACH INDICES >LOADS> DIFFERENTLY UPON EACH OTHER. THESE LOADINGS OR WEIGHTS MAY BE VIEWED AS CORRELATIONS OF THE INDICES WITH THE FACTORS AND MAY BE UTILIZED TO GENERATE >FACTOR SCORES> WHICH EXPRESS EACH SUBJECT'S POSITION ON EACH FACTOR. FACTORS ARE SOMETIMES ROTATED TO MAXIMIZE THE LOADINGS FOR CERTAIN INDICATORS AND MINIMIZE THE LOADINGS FOR OTHERS. ROTATED FACTOR LOADINGS PRESENT THE SIMPLEST POSSIBLE PICTURE OF THE CONTRIBUTIONS OF THE INDICES TO THE FACTORS. ONCE FACTOR SCORES HAVE BEEN CALCULATED, IT IS POSSIBLE TO CORRELATE THEM WITH OTHER INDICES TO FACILITATE PREDICTION AND DESCRIPTION. FACTOR ANALYSIS HAS PROVEN TO BE A POWERFUL TOOL OF ANALYSIS IN SEVERAL INTERNATIONAL RELATIONS STUDIES.

(4). SEE THE VARIOUS DON RESEARCH REPORTS FOR BACKGROUND IN RESPECT TO DEVELOPMENT OF ATTRIBUTE, SOCIAL FIELD, AND STATUS-FIELD THEORIES.

(5). RUMMEL ARGUES: >BUT WHY POSIT ECONOMIC DEVELOPMENT AND POWER AS STATUS DIMENSIONS? THESE ARE THE ONLY CONSISTENTLY DELINEATED NATIONAL DIMENSIONS INVOKING INTERNATIONAL CONSENSUS

ABOUT WHAT IS DESIRABLE. OTHER NATIONAL DIMENSIONS, SUCH AS THE AFOREMENTIONED ONES COMPRISING POLITICAL ORIENTATION, RELIGION, AND CULTURE, INVOKE NO CONSENSUS ABOUT WHAT IS ESTEEMED OR DESIRABLE.> (1971: 28).

(6). AN ATTEMPT WAS MADE TO TEST THOSE >THEOREMS< (HYPOTHESES MIGHT BE A BETTER TERM) WHICH APPEAR TO BE POTENTIALLY MOST FRUITFUL AND EASY TO OPERATIONALIZE. AN EXAMPLE OF THE OPPOSITE WOULD BE >THEOREM 4, (MOBILITY THEOREM): NATIONS DESIRE UPWARD MOBILITY.> IN ADDITION, CERTAIN COROLLARIES SEEM TO FALL IN THIS SAME CATEGORY, SUCH AS >COROLLARY 5, (DISSONANCE COROLLARY): STATUS DISEQUILIBRIUM CAUSES COGNITIVE DISSONANCE.> (RUMMEL,1971)

(7). THIS IS ACTUALLY NOT MADE CLEAR IN THE DON RESEARCH REPORTS. THIS INTERPRETATION WAS PROVIDED BY RUMMEL, IN A SEMINAR SETTING, IN ANSWER TO A STUDENT QUESTION.

(8). SUMMING THE SQUARES OF THE PARAMETER WEIGHTS, BUT RETAINING THE ORIGINAL PARAMETER WEIGHT SIGNS, ACROSS STATES, WILL THE SAME SIGN RESULTS AS THE CITY BLOCK METHOD, AND BECAUSE OF THE SIMPLICITY OF PROCEDURE AND INTERPRETATION IT IS THE METHOD USED.

(9). A CANONICAL CORRELATION ANALYSIS ASSIGNS WEIGHTS TO TWO SETS OF VARIABLES SO THAT THE SCORES GENERATED FROM THE TWO SETS ARE MAXIMALLY CORRELATED. THE CANONICAL VARIATE SCORES THEMSELVES, FOR ONE SET, CAN BE COMPUTATED BY THE FORMULA C = SW, WHERE C IS AN N X 1 VECTOR OF CANONICAL VARIATE SCORES, S IS AN N X M MATRIX OF SUBJECTS' STANDARD SCORES ON THE ORIGINAL VARIABLES, AND W IS A M X 1 VECTOR OF CANONICAL WEIGHTS, WHERE N = SUBJECT AND M = VARIABLES.

THIS FORMULA IS GIVEN HERE TO MAKE CLEAR THE MEANING OF CANONICAL VARIATE SCORES. THE ACTUAL CALCULATION OF THE WEIGHTS, OF COURSE, IS THE SOLUTION TO THE BASIC CANONICAL PROBLEM, WHICH IS TO MAXIMALLY CORRELATE TWO SUCH SETS OF SCORES, ONE GENERATED FROM ONE SET OF VARIABLES AND THE OTHER GENERATED FROM THE OTHER SET OF VARIABLES. WHEN WEIGHTS ARE CALCULATED WHERE THIS IS THE CASE, THE CANONICAL VARIATE SCORES PREDICT THE ORIGINAL VARIABLES TO THE EXTENT OF THEIR LOADINGS, IF THE ORIGINAL VARIABLES ARE MUTUALLY ORTHOGONAL IN EACH SET. LIKE FACTOR SCORES, A GREAT DEAL OF INFORMATION CAN BE SUMMARIZED BY PROPERLY COMPUTED CANONICAL VARIATE SCORES.

IF CORRELATED DATA ARE USED, THEN THE INDIVIDUAL IMPORTANCE OF THE PREDICTORS IS NOT CLEAR BY EXAMINATION OF CANONICAL WEIGHTS, FOR THE SAME REASONS AS IN THE APPLICATION OF MULTIPLE REGRESSION. THAT IS, THE WEIGHTS ARE ASSIGNED SO THAT ONLY UNIQUE VARIANCE IS CONSIDERED. IF THE VARIABLES ARE UNCORRELATED, HOWEVER, WEIGHTS WILL BE EQUAL TO THE CORRELATION OF THE VARIABLES WITH THE CANONICAL VARIATE SCORES.

ALTHOUGH ONLY ONE SET OF WEIGHTS IS LIKELY TO PRODUCE EXACTLY THE SAME MAXIMAL CORRELATION, NEVERTHELESS, DIFFERENT WEIGHTING SCHEMES MAY PRODUCE MORE THAN ONE STATISTICALLY SIGNIFICANT CANONICAL CORRELATION. WHEN ADDITIONAL CORRELATIONS ARE PRODUCED THROUGH DIFFERENT WEIGHTING SCHEMES, THEY ARE SUBJECTED TO THE RESTRICTION THAT THE SUBJECTS' CANONICAL VARIATE SCORES MUST BE ORTHOGONAL TO ALL PREVIOUSLY CALCULATED CANONICAL VARIATE SCORES. THUS, IF TWO SIGNIFICANT CANONICAL CORRELATIONS ARE PRODUCED, THE

CANONICAL VARIATE SCORES IN THE SECOND CANONICAL CORRELATION WILL HAVE A ZERO CORRELATION WITH THE CANONICAL VARIATE SCORES OF THE FIRST CANONICAL CORRELATION. IF STATISTICAL SIGNIFICANCE IS IGNORED, THERE CAN BE AS MANY CANONICAL CORRELATIONS AS THERE ARE VARIABLES IN THE SMALLEST SET, AND THUS, AS MANY SETS OF CANONICAL VARIATE SCORES AS THERE ARE VARIABLES IN THE SMALLEST SET.

(10). THAT IS, EXPECTED IN TERMS OF THE DISTRIBUTION OF CORRELATIONS. SEE HADLEY (1961) FOR FULL TREATMENT ON THIS POINT.

BIBLIOGRAPHY

ADELMAN, IRMA, AND MORRIS, CYNTHIA TAFT. SOCIETY, POLITICS, AND ECONOMIC DEVELOPMENT: A QUANTITATIVE APPROACH. BALTIMORE: JOHN HOPKINS PRESS, 1967.

AZAR, E. E., COHEN, S.H., AND MCCORMICK, J. THE PROBLEM OF SOURCE COVERAGE IN THE USE OF INTERNATIONAL EVENTS DATA, INTERNATIONAL STUDIES QUARTERLY, 1972, 16, PP. 373-388.

AZAR, E.E., AND SLOAN, T.J. DIMENSIONS OF INTERACTION: A SOURCE BOOK FOR THE STUDY OF THE BEHAVIOR OF 31 NATIONS FROM 1948 THROUGH 1973. UNIVERSITY OF PITTSBURGH CENTER FOR INTERNATIONAL STUDIES, PITTSBURGH, PENNSYLVANIA, 1975A.

AZAR, E.E. TEN ISSUES IN EVENTS RESEARCH, E. AZAR AND J. BEN-DAK, EDS. THEORY AND PRACTICE OF EVENTS RESEARCH. NEW YORK, NEW YORK: GORDON AND BREACH, 1975B, PP. 1-17.

BANKS, ARTHUR S., AND TEXTOR, ROBERT. A CROSS-POLITY SURVEY. CAMBRIDGE, MASSACHUSETTS:

MIT PRESS, 1963.

BANKS, ARTHUR S., AND GREGG, PHILLIP. GROUPING POLITICAL SYSTEMS: Q FACTOR ANALYSIS OF A CROSS-POLITY SURVEY, AMERICAN BEHAVIORAL SCIENTIST, 1965, 3, PP. 3-5.

BANKS, ARTHUR S. CROSS-POLITY TIME SERIES. CAMBRIDGE, MASSACHUSETTS: MIT PRESS, 1971.

BURGESS, PHILIP M. AND MUNTON, DONALD. AN INVENTORY OF ARCHIVED AND FUGITIVE INTERNATIONAL RELATIONS DATA. BEHAVIORAL SCIENCE LABORATORY, DEPARTMENT OF POLITICAL SCIENCE, OHIO STATE UNIVERSITY, MERSHON CENTRE, COLUMBUS, OHIO.

CALHOUN, HERBERT L. EXPLORATORY APPLICATIONS TO SCALED EVENT DATE, PAPER READ AT THE 13TH ANNUAL MEETING OF THE INTERNATIONAL STUDIES ASSOCIATION, DALLAS, MARCH 1972.

CATTELL, RAYMOND B. THE BASIS OF RECOGNITION AND INTERPRETATION OF FACTORS, EDUCATIONAL AND PSYCHOLOGICAL MEASUREMENT, 1962, 22, PP. 667-695.

CATTELL, RAYMOND B. THE MEANING AND STRATEGIC USE OF FACTOR ANAYLSIS, IN RAYMOND B. CATIELL, ED., HANDBOOK OF MULTIVARIATE EXPERIMENTAL PSYCHOLOGY. CHICAGO: RAND MCNALLY, 1966.

COLLINS, JOHN. FACTOR ANALYSIS AND THE GROUPING OF EVENTS DATA: PROBLEMS AND POSSIBLE SOLUTIONS. ST. LOUIS, MISSOURI: UNIVERSITY OF MISSOURI, 1969, PP. 121-128.

DORAN, C. F., PENDLEY, R.E., AND ANTUNES, G.E. A TEST OF CROSS-NATIONAL EVENT RELIABILITY: GLOBAL VERSUS REGIONAL DATA SOURCES, INTERNATIONAL STUDIES QUARTERLY, 1973, 17, PP. 175-205.

EAST, M.A. AND GREGG, P.M. FACTORS INFLUENCING COOPERATION AND CONFLICT IN THE INTERNATIONAL SYSTEM, INTERNATIONAL STUDIES QUARTERLY, 1967, 11, PP. 244-269.

GOODMAN, R., HART, J., AND ROSECRANCE, R. TESTING INTERNATIONAL THEORY: METHODS AND DATA IN A SITUATIONAL ANALYSIS OF INTER-

NATIONAL POLITICS, SITUATIONAL ANALYSIS PROJECT, PAPER NUMBER 2, MIMEO, 1972.

GREGG, PHILLIP M. AND BANKS, ARTHUR S. DIMENSIONS OF POLITICAL SYSTEMS: FACTOR ANALYSIS OF A CROSS POLITY SURVEY, AMERICAN POLITICAL SCIENCE REVIEW, 1965, 59, PP. 602-614.

HADLEY, G. LINEAR ALGEBRA. READING, MASSACHUSETTS: ADDISON-WESTLEY, 1961.

HARMAN, HARRY H. MODERN FACTOR ANALYSIS. CHICAGO: UNIVERSITY OF CHICAGO PRESS, 1960.

HILTON, GORDON. A REVIEW OF THE DIMENSIONALITY OF NATIONS PROJECT, RICHARDSON INSTITUTE FOR CONFLICT AND PEACE RESEARCH, MIMEO, 1971.

HOGGARD, G. AN ANALYSIS OF THE REAL DATA, E. AZAR AND J. BEN-DAK, EDS., THEORY AND PRACTICE OF EVENTS RESEARCH. NEW YORK: GORDON AND BREACH, 1975, PP. 19-27.

HORST, PAUL. GENERALIZED CANONICAL CORRELATIONS AND THEIR APPLICATIONS TO EXPERIMENTAL DATA.

SEATTLE: UNIVERSITY OF WASHINGTON, MIMEO, 1961A.

HORST, PAUL. RELATIONS AMONG M SETS OF MEASURES, PSYCHOMETRIKA, 1961B, 26, PP. 129-149.

HOTELLING, HAROLD. RELATIONS BETWEEN TWO SETS OF VARIATES, BIOMETRIKA, 1936, 28, PP. 321-377.

HOTELLING, HAROLD. THE MOST PREDICTABLE CRITERION, JOURNAL OF EDUCATIONAL PSYCHOLOGY, 1953, 26, PP. 139-142.

KAISER, HENRY F. THE VARIMAX CRITERION FOR ANALYTICAL ROTATION IN FACTOR ANALYSIS, PSYCHOMETRIKA, 1958, 23, PP. 187-200.

KEGLEY, CHARLES W., JR. A CIRCUMPLEX MODEL OF INTERNATIONAL INTERACTIONS, INSTITUTE OF INTERNATIONAL STUDIES, UNIVERSITY OF NORTH CAROLINA, 1976A.

KEGLEY, C. AND SKINNER, R.A. THE CASE-FOR-ANALYSIS PROBLEM IN THE COMPARATIVE STUDY OF

FOREIGN POLICY, J.N. ROSENAU, ED., IN SEARCH OF GLOBAL PATTERNS. NEW YORK: FREE PRESS, 1976B.

LEWIN, KURT. FIELD THEORY IN SOCIAL SCIENCE. DORWIN CARTWRIGHT, ED. NEW YORK: HARPER TORCH BOOKS, 1964.

MCCLELLAND, C. INTERNATIONAL INTERACTION ANALYSIS: BASIC RESEARCH AND SOME PRACTICAL APPLICATIONS, WEIS TECHNICAL REPORT NO. 2, UNIVERSITY OF SOUTHER CALIFORNIA, LOS ANGELES, 1968.

MCCLELLAND, C. WORLD EVENT INTERACTION SURVEY. ICPR EDITION, UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, 1972.

MCGOWAN, P.J. AND SHAPIRO, H.B. THE COMPARATIVE STUDY OF FOREIGN POLICY. BEVERLY HILLS, CALIFORNIA: SAGE PUBLICATIONS, 1973.

MCNEMAR, Q. PSYCHOLOGICAL STATISTICS, NEW YORK: JOHN WILEY AND SONS, INC., 1968.

NEWCOMBE, ALAN AND WERT, JAMES. AN INTER-

NATION TENSIOMETER FOR THE PREDICTION OF WAR. CANADIAN PEACE RESEARCH INSTITUTE, OAKVILLE, ONTARIO, CANADA, 1972.

PARK, TONG WHAN. ASIAN CONFLICT IN SYSTEMATIC PERSPECTIVE: APPLICATION OF FIELD THEORY (1955 AND 1963), RESEARCH REPORT NO. 35, THE DIMENSIONALITY OF NATIONS PROJECT, UNIVERSITY OF HAWAII, 1969.

PARK, TONG WHAN. THE ROLE OF DISTANCE IN INTERNATIONAL RELATIONS: A NEW LOOK AT THE SOCIAL FIELD THEORY, PAPER, PRESENTED TO THE INTERNATIONAL STUDIES ASSOCIATION, NEW ORLEANS, 1970.

PHILLIPS, WARREN R. A MATHEMATICAL THEORY OF CONFLICT DYNAMICS, RESEARCH REPORT NO. 59, THE DIMENSIONALITY OF NATIONS PROJECT, UNIVERSITY OF HAWAII, 1970.

PHILLIPS, WARREN R. WHERE HAVE ALL THE THEORIES GONE? WORLD POLITICS, 1974, 26, PP. 156-188.

POPPER, KARL. THE LOGIC OF SCIENTIFIC DIS-

COVERY. NEW YORK: BASIC BOOKS, 1959.

RUMMEL, R.J. FIELD THEORY AND ATTRIBUTE THEORIES OF NATIONA BEHAVIOR: SOME MATHEMATICAL INTERRELATIONSHIPS, RESEARCH REPORT NO. 31, THE DIMENSIONALITY OF NATIONS PROJECT, UNIVERSITY OF HAWAII, 1969A.

RUMMEL, R.J. FIELD THEORY AND INDICATORS OF INTERNATIONAL BEHAVIOR, RESEARCH REPORT NO. 29, THE DIMENSIONALITY OF NATIONS PROJECT, UNIVERSITY OF HAWAII, 1969B.

RUMMEL, R.J. FORCASTING INTERNATIONAL RELATIONS: A PROPOSED INVESTIGATION OF 3-MODE FACTOR ANALYSIS, TECHNOLOGICAL FORECASTING, 1969C, 1, PP. 197-216.

RUMMEL, R.J. INDICATORS OF CROSS NATIONAL AND INTERNATIONAL PATTERNS, AMERICAN POLITICAL SCIENCE REVIEW, 1969D, 63, PP. 127-147.

RUMMEL, R.J. SOME EMPIRICAL FINDINGS ON NATIONS AND THEIR BEHVAIOR, WORLD POLITICS, 1969,E, 21, PP. 226-241.

RUMMEL, R.J. APPLIED FACTOR ANALYSIS. EVANSTON, ILLINOIS: NORTHWESTERN UNIVERSITY PRESS, 1970A.

RUSSETT, BRUCE M., ET AL. WORLD HANDBOOK OF POLITICAL AND SOCIAL INDICATORS. NEW HAVEN, CONNECTICUT: YALE UNIVERSITY PRESS, 1964.

RUSSETT, BRUCE M. INTERNATIONAL REGIONS AND THE INTERNATIONAL SYSTEM. CHICAGO: RAND MCNALLY, 1967.

SALMORE, S.A. AND HERMANN, C.F. THE EFFECT OF SIZE, DEVELOPMENT, AND ACCOUNTABILITY ON FOREIGN POLICY, PEACE RESEARCH PAPERS, 1969, 14, PP. 15-30.

SAWYER, JACK. DIMENSIONS OF NATIONS: SIZE, WEALTH AND POLITICS, THE AMERICAN JOURNAL OF SOCIOLOGY, 1967, 73, PP. 145-172.

SIGLER, J. RELIABILITY PROBLEMS IN THE MEASUREMENT OF INTERNATIONAL EVENTS IN THE ELITE PRESS, V. DAVIS, ED., APPLICATION OF EVENTS DATA ANALYSIS: CASES, ISSUES,

AND PROGRAMMES IN INTERNATIONAL INTERACTION. BEVERLY HILLS, CALIFORNIA: SAGE PUBLICATIONS, 1972.

SLOAN, THOMAS. THE DEVELOPMENT OF COOPERATION AND CONFLICT INTERACTION SCALES: AN ADVANCE IN THE MEASUREMENT AND ANALYSIS OF EVENTS DATA, STUDIES OF CONFLICT AND PEACE, DEPARTMENT OF POLITICAL SCIENCE, UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL.

TANTER, RAYMOND. DIMENSIONS OF CONFLICT BEHAVIOR WITHIN AND BETWEEN NATIONS, 1958-60, JOURNAL OF CONFLICT RESOLUTION, 1966, 10, PP. 41-64.

TAYLOR, CHARLES L. AND HUDSON, MICHAEL C. WORLD HANDBOOK OF POLITICAL AND SOCIAL INDICATORS. FIRST ICPR EDITION. ANN ARBOR, MICHIGAN, 1971.

VINCENT, JACK E. FACTOR ANALYSIS IN INTERNATIONAL RELATIONS: INTERPRETATION, PROBLEM AREAS AND AN APPLICATION. GAINESVILLE, FLORIDA: UNIVERSITY OF FLORIDA PRESS, 1971A.

VINCENT, JACK E. GENERATING SOME EMPIRICALLY BASED INDICES FOR INTERNATIONAL ALLIANCE AND REGIONAL SYSTEMS OPERATING IN THE EARLY 1960S, (WITH JOSEPH FALARDEAU, EDWARD SCHWERIN, BARRY BOSEMAN, AND ROBERT JEDNAK). INTERNATIONAL STUDIES QUARTERLY, 1971B, 15, PP. 465-525.

VINCENT, JACK E. PREDICTING VOTING PATTERNS IN THE GENERAL ASSEMBLY, AMERICAN POLITICAL SCIENCE REVIEW, 1971C, 65, PP. 471-498.

VINCENT, JACK E. SCALING THE UNIVERSE OF STATES ON CERTAIN USEFUL MULTIVARIATE DIMENSIONS, JOURNAL OF SOCIAL PSYCHOLOGY, 1971D, 85, PP. 261-283.

VINCENT, JACK E. AN APPLICATION OF ATTRIBUTE THEORY TO GENERAL ASSEMBLY VOTING PATTERNS AND SOME IMPLICATIONS, INTERNATIONAL ORGANIZATION, 1972A, 26, PP. 551-582.

VINCENT, JACK E. COMMENTS ON SOCIAL FIELD THEORY, RESEARCH REPORT NO. 58, THE DIMEN-

SIGNALITY OF NATIONS PROJECT, UNIVERSITY OF HAWAII, 1972B.

VINCENT, JACK E. DISTANCE THEORY, FLORIDA ATLANTIC UNIVERSITY, MIMEO, 1973A.

VINCENT, JACK E. EMPIRICAL TESTS OF ATTRIBUTES, SOCIAL FIELD AND STATUS-FIELD THEORIES ON INTERNATIONAL RELATIONS DATA, (WITH ROGER BAKER, SUSAN GAGNON, KEITH HAMM, AND SCOTT REILLY). INTERNATIONAL STUDIES QUARTERLY, 1973B, 17, PP. 405-443.

VINCENT, JACK E. A CRITIQUE OF SOCIAL FIELD THEORY AND SOME SUGGESTIONS FOR FURTHER ELABORATIONS, POLITICAL METHODOLOGY, 1975, 2, PP. 151-188.

VINCENT, JACK E. EXPLORATIONS IN D-SPACE: AN APPLICATION OF DEVIANCE THEORY, COMPARATIVE POLITICAL STUDIES, 1976, 9, PP. 107-135.

VINCENT JACK E. ANALYZING INTERNATIONAL CONFLICT AND COOPERATION FLOWS: AN APPLICATION OF ATTRIBUTE THEORY, SOCIAL SCIENCE

JUARTERLY, 1977, 58, PP. 111-120.

WRIGHT, QUINCY. A STUDY OF INTERNATIONAL RELATIONS. NEW YORK: APPLETON-CENTURY-CROFTS, 1955.

YOUNG, ROBERT A. A CLASSIFICATION OF NATIONS ACCORDING TO FOREIGN POLICY OUTPUT, PAPER, READ AT THE 66TH ANNUAL MEETING OF THE AMERICAN POLITICAL SCIENCE ASSOCIATION, LOS ANGELES, SEPTEMBER 1970.

ZINNES, DINA A. CONTEMPORARY RESEARCH IN INTERNATIONAL RELATIONS: A PERSPECTIVE AND A CRITICAL APPRAISAL. NEW YORK: THE FREE PRESS, 1976.

CHARTS, LISTS, FIGURES AND TABLES

NOTE! CERTAIN MATERIALS MAY BE TRUNCATED, WHERE TRUNCATION IS INDICATED BY A LINE OF **********, TO REDUCE REDUNDANCY OR FACILITATE FLOW. IF THE MATERIAL IS NOT FOUND IN ANOTHER MONOGRAPH, IT CAN BE FOUND, IN IT'S ENTIRETY, AT THE END OF THE MONOGRAPH.

CHART 1.

SUMMARY OF THEORIES

	SUBJECTS	PREDICTORS	THAT PREDICTED
ATTRIBUTE THEORY	NATION MONADS	A-SPACE FACTOR SCORES	TOTAL BEHAVIOR
SOCIAL FIELD THEORY	NATION DYADS	A-SPACE DISTANCES	DYADIC BEHAVIOR
STATUS FIELD THEORY	NATION DYADS	A-SPACE DISTANCES	DYADIC BEHAVIOR
RELATIVE STATUS FIELD THEORY	NATION DYADS	PARTITIONED A-SPACE DISTANCES	PARTITIONED DYADIC BEHAVIOR

DISTANCE THEORY	NATION DYADS	D-SPACE FACTOR SCORES	DYADIC BEHAVIOR
DEVIANCE THEORY	NATION MONADS	MEANS OF D-SPACE FACTOR SCORES	TOTAL BEHAVIOR

LIST 1.

BASIC STEPS

STEP 1. CONSTRUCT A-SPACE.

STEP 2. CONSTRUCT D-SPACE.

STEP 3. CONSTRUCT THE MONADIC CONFLICT VECTOR.

STEP 4. CONSTRUCT THE DYADIC CONFLICT VECTORS.

STEP 5. CONSTRUCT THE MONADIC COOPERATION VECTOR.

STEP 6. CONSTRUCT THE DYADIC COOPERATION VECTORS.

STEP 7. CORRELATE A-SPACE FACTOR SCORES WITH THE MONADIC CONFLICT VECTOR (ATTRIBUTE THEORY).

STEP 8. CORRELATE A-SPACE FACTOR SCORES WITH THE MONADIC COOPERATION VECTOR (ATTRIBUTE THEORY).

STEP 9. CORRELATE THE 128 A-SPACE DISTANCE SETS WITH 128 DYADIC CONFLICT VECTOR SETS (SOCIAL FIELD AND STATUS-

FIELD THEORIES).

STEP 10. CORRELATE THE 128 A-SPACE DISTANCE SETS WITH 128 DYADIC COOPERATION VECTOR SETS (SOCIAL FIELD AND STATUS-FIELD THEORY).

STEP 11. CORRELATE THE 128 D-SPACE DYADIC FACTOR SETS WITH THE 128 DYADIC CONFLICT VECTOR SETS (DISTANCE THEORY).

STEP 12. CORRELATE THE 128 D-SPACE DYADIC FACTOR SETS WITH THE 128 DYADIC COOPERATION VECTOR SETS (DISTANCE THEORY).

STEP 13. PARTITION THE A-SPACE DISTANCES INTO TT, UT, TU AND UU MATRICES (FOR RELATIVE STATUS-FIELD THEORY TESTS).

STEP 14. CORRELATE THE 128 TT A-SPACE DISTANCES MATRICES WITH THE 128 CONFLICT VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 15. CORRELATE THE 128 UT A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC CONFLICT VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 16. CORRELATE THE 128 TU A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC CONFLICT VECTOR SETS (RELATIVE STATUS FIELD THEORY).

STEP 17. CORRELATE THE 128 UU A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC CONFLICT VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 18. CORRELATE THE 128 TI A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC COOPERATION VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 19. CORRELATE THE 128 UI A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC COOPERATION VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 20. CORRELATE THE 128 TU DISTANCE MATRICES WITH THE 128 DYADIC COOPERATION VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 21. CORRELATE THE 128 UU A-SPACE DISTANCE MATRICES WITH THE 128 DYADIC COOPERATION VECTOR SETS (RELATIVE STATUS-FIELD THEORY).

STEP 22. PARTITION THE NEGATIVE WEIGHT SUBJECTS FROM THE POSITIVE WEIGHT SUBJECTS ON EACH DIMENSION, SUCH AS ECONOMIC DEVELOPMENT, FOR EACH TEST I.E., FOR THE OUTCOMES GENERATED FROM THE STEPS 9-12, 14-21.

STEP 23. CORRELATE THE A-SPACE FACTOR SCORES WITH THE MAGNITUDE OF THE POSITIVE WEIGHTS GENERATED FOR EACH STEP 9-12, 14-21 (TO PROVIDE A BASIS FOR COMPARING THEORIES AND TO GENERATE DESCRIPTIVE INFORMATION CONCERNING THE CHARACTERISTICS OF THOSE WITH LARGE VS. SMALL POSITIVE PARAMETER WEIGHTS).

STEP 24. CORRELATE A-SPACE FACTOR SCORES WITH THE MAGNITUDE

OF THE NEGATIVE WEIGHTS FOR STEPS 9-12, 14-21 (FOR THE SAME PURPOSE AS IN THE CASE OF THE POSITIVE WEIGHTS).

STEP 25. PERFORM A DISCRIMINANT FUNCTION ANALYSIS ON POSITIVE WEIGHT VS. NEGATIVE WEIGHT SUBJECTS FROM STEPS 9-12, 14-21 (TO COMPARE POSITIVE VS. NEGATIVE WEIGHT SUBJECTS ACROSS THE THEORIES I.E., IN CONTRAST TO THE MAGNITUDE OF WEIGHTS ANALYSIS AS PERFORMED IN STEPS 23-24).

STEP 26. COMPUTE THE MEANS OF D-SPACE FACTOR SCORES, DYADIC SET BY DYADIC SET, TO CREATE A MATRIX OF MEANS OF D-SPACE (FOR DEVIANCE THEORY).

STEP 27. CORRELATE THE MEANS OF D-SPACE WITH THE MONADIC CONFLICT VECTOR (DEVIANCE THEORY).

STEP 28. CORRELATE THE MEANS OF D-SPACE WITH THE MONADIC COOPERATION VECTOR (DEVIANCE THEORY).

STEP 29. GENERATE PREDICTIVE MODELS FOR THE THEORIES FOR VARIOUS GROUPINGS SUCH AS OAS, AFRICA, NATO, ETC., SPANNING THE INTERNATIONAL RELATIONS SYSTEM.

STEP 30. COMPARE THE THEORETIC MODELS, GENERATED IN STEP 29, (IN RESPECT TO THE IMPLICATIONS FOR CONFLICT AND COOPERATION EXPORTATION BETWEEN REGIONAL GROUPINGS) FOR MAJOR DIMENSIONS, SUCH AS ECONOMIC DEVELOPMENT.

LIST 2.

SELECTED ILLUSTRATIVE FINDINGS ON STEPS THAT HAVE BEEN COMPLETED (STEP NUMBERS CORRESPOND WITH PREVIOUS STEP NUMBERS).

STEP 1. 22 FACTORS ARE GENERATED FROM 144 ATTRIBUTE VARIABLES. ECONOMIC DEVELOPMENT, POWER BASE, AND NON-COMPETITIVE POLITICAL SYSTEM ARE AMONG THE LARGEST FACTORS.

STEP 2. 33 FACTORS ARE GENERATED FROM A 144 DISTANCE MATRIX. ECONOMIC DEVELOPMENT, POWER BASE AND POLITICAL DISTANCE ARE AMONG THE LARGEST FACTORS.

STEP 3. THE USSR, US, CHINESE PEOPLES' REPUBLIC AND ISRAEL ARE AMONG THE HIGHEST CONFLICT EXPORTING STATES.

STEP 3. ICELAND, AFGHANISTAN, AND NIGERIA ARE AMONG THE LOWEST CONFLICT EXPORTING STATES.

STEP 5. THE US, USSR, UNITED KINGDOM AND FRANCE ARE AMONG THE HIGHEST COOPERATION EXPORTING STATES.

STEP 5. PARAGUAY, ICELAND AND DAHOMEY, ARE AMONG THE LOWEST COOPERATION EXPORTING STATES.

STEP 7. POWER BASE AND MILITARY PERSONAL PER CAPITA ARE THE BEST PREDICTORS OF HIGH CONFLICT EXPORTATION (ATTRIBUTE THEORY).

STEP 8. POWER BASE IS THE BEST PREDICTOR OF HIGH COOPERATION EXPORTATION (ATTRIBUTE THEORY).

STEP 9. IN THE SYSTEM AS A WHOLE, I'S TEND TO EXPORT MOST CONFLICT TO J'S ABOVE THEM IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER (SOCIAL FIELD THEORY).

STEP 10. IN THE SYSTEM AS A WHOLE, I'S TEND TO EXPORT MOST COOPERATION TO J'S ABOVE THEM IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER (SOCIAL FIELD THEORY).

STEP 11. IN THE SYSTEM AS A WHOLE, I'S TEND TO EXPORT MOST CONFLICT TO J'S DISTANT FROM THEM IN RESPECT TO POWER BASE, ECONOMIC DEVELOPMENT AND POLITICAL SYSTEM (DISTANCE THEORY).

STEP 12. IN THE SYSTEM AS A WHOLE, I'S TEND TO EXPORT MOST COOPERATION TO J'S DISTANT FROM THEM IN RESPECT TO POWER BASE, ECONOMIC DEVELOPMENT AND POLITICAL SYSTEMS (DISTANCE THEORY).

STEP 26. THE MOST DEVIANT NATIONAL ACTORS IN TERMS OF THEIR ATTRIBUTES ARE THE U.S., UNITED KINGDOM AND SWEDEN.

STEP 27. HIGH DEVIANCE IN RESPECT TO MILITARISM AND

POWER TENDS TO PREDICT HIGH CONFLICT (DEVIANCE THEORY).

STEP 28. HIGH DEVIANCE IN RESPECT TO ECONOMIC DEVELOPMENT AND POWER TENDS TO PREDICT HIGH COOPERATION (DEVIANCE THEORY).

FIGURE 1.

STATUS-FIELD THEORY

COOPERATION THEOREM

J ABOVE I(HIGH COOPERATION)

I(EXPORTS TO)

J BELOW I(LOW COOPERAION)

(DEVELOPMENT AND POWER DIMENSIONS)

DEVELOPED CONFLICT THEOREM

J ABOVE I(LOW CONFLICT)

I(EXPORTS TO)

J BELOW I(HIGH CONFLICT)

(DEVELOPMENT)

J ABOVE I(HIGH CONFLICT)

I(EXPORTS TO)

J BELOW I(LOW CONFLICT)

(POWER)

UNDEVELOPED CONFLICT THEOREM

J ABOVE I(HIGH CONFLICT)

I(EXPORTS TO)

J BELOW I(LOW CONFLICT)

(DEVELOPMENT)

J ABOVE I(LOW CONFLICT)

I(EXPORTS TO)

J BELOW I(HIGH CONFLICT)

(POWER)

FIGURE 2.

RELATIVE STATUS-FIELD THEORY

MODEL 1

ECONOMIC DEVELOPMENT (CLOSE)

POWER (CLOSE)

MODEL 2

ECONOMIC DEVELOPMENT (FAR)

POWER (FAR)

MODEL 3

ECONOMIC DEVELOPMENT (CLOSE)

POWER (FAR)

MODEL 4

ECONOMIC DEVELOPMENT (FAR)

POWER (CLOSE)

FIGURE 5.

MODEL 1 OF RELATIVE STATUS FIELD THEORY

IT ---> UU = (-AE) + (-AP)

UU ---> IT = (AE) + (AP)

UT ---> IU = (AE) + (-AP)

IU ---> UT = (-AE) + (AP)

FIGURE 4.

RUMMEL'S DISTANCE METRIC, POSITIVE CORRELATION CASE

- J FAR ABOVE I + MUCH COOPERATION

J SAME AS I AVERAGE COOPERATION

+ J FAR BELOW I - LITTLE COOPERATION

FIGURE 5.

U RUN, RELATIVE STATUS-FIELD THEORY, POSITIVE CORRELATION CASE

- J FAR ABOVE I + MUCH COOPERATION

J AVERAGE DISTANCE ABOVE I AVERAGE COOPERATION

J SAME AS I - LITTLE COOPERATION

FIGURE 6.

T RUN, RELATIVE STATUS-FIELD THEORY, POSITIVE CORELATION CASE

J SAME AS I + MUCH COOPERATION

J AVERAGE DISTANCE AVERAGE COOPERATION

\+ J FAR BELOW I - LITTLE COOPERATION

TABLE 1.

A-SPACE, ROTATED FACTORS SORTED

01 ECONOMIC DEVELOPMENT

085 NATIONAL GOVERNMENT REVENUE PER CAPITA
.92

087 NATIONAL GOVERNMENT EXPENDITURE PER CAPITA
.91

095 IMPORTS PER CAPITA
.91

031 GNP PER CAPITA (IN U.S. DOLLARS)
.90

058 EDUCATION EXPENDITURE PER CAPITA (IN MILLION U.S. DOLLARS)
.89

115 TOTAL HIGHWAY VEHICLES PER CAPITA
.89

111 PASSENGER CARS PER CAPITA
.88

116 GROSS DOMESTIC PRODUCT PER CAPITA

.88

097 EXPORTS PER CAPITA

.87

093 TELEPHONES PER CAPITA

.87

113 COMMERCIAL VEHICLES PER CAPITA

.85

015 RADIOS PER 1,000 POPULATION

.86

120 ENERGY CONSUMPTION IN KILOGRAS PER CAPITA

.85

****

02 POWER BASE

099 TOTAL PRIMARY SCHOLL ENROLLMENT

.94

107 TOTAL SCHOOL ENROLLMENT

.93

001 TOTAL POPULATION

.93

080 POPULATION IN CITIES OF 100,000+

.92

030 TOTAL GNP (IN MILLIONS U.S. DOLLARS)

.91

101 TOTAL SECONDARY SCHOOL ENROLLMENT
.90

082 POPULATION IN CITIES OF 50,000+
.89

098 RAILROAD MILEAGE
.88

109 RAIL PASSENGER KILOMETERS
.88

057 TOTAL EDUCATION EXPENDITURE (IN MILLION U.S. DOLLARS)
.87

105 TOTAL UNIVERSITY ENROLLMENT
.85

119 TOTAL ENERGY CONSUMPTION IN METRIC TONS OF COAL EQUIVALENT
.84

066 TOTAL INTERNAL SECURITY FORCES (IN UNITS)
.84

103 TOTAL PRIMARY AND SECONDARY ENROLLMENT
.84

036 TOTAL TRADE, 1960 (IN MILLIONS U.S. DOLLARS)
.82

****

03 POLITICAL INSTABILITY

142 MEAN UNSUCCESSFUL IRREGULAR POWER TRANSFERS, 1965-1967
.83

074 MILITARY REGIME

.81

137 MEAN NUMBER OF POLITICAL ASSASSINATIONS DURING 1963-1967

.77

075 MEAN NUMBER OF MAJOR CONSTITUTIONAL CHANGES, 1962-1966

.75

136 MEAN NUMBER OF IRREGULAR POWER TRANSFERS DURING 1963-1967

.73

143 MEAN NUMBER OF POLITICAL EXECUTIONS DURING 1963-1967

.73

04 NON-COMPETITIVE POLITICAL SYSTEM

078 LEGISLATIVE SELECTION

-.50

065 POLITICAL PARTY FRACTIONALIZATION BASED ON NUMBER OF SEATS, 1964 -.70

065 PRESS FREEDOM INDEX

-.71

064 ELECTORAL IRREGULARITY SCORE

-.76

126 SIZE OF LEGISLATURE/NUMBER OF SEATS HELD BY LARGEST PARTY

-.80

077 LEGISLATIVE EFFECTIVENESS

-.85

127 COMPETITIVENESS OF NOMINATING PROCESS

-.86

128 PARTY LEGITIMACY

-.87

129 AGGREGATE COMPETITION INDEX

-.88

****

A-SPACE FACTORS.

01. ECONOMIC DEVELOPMENT

02. POWER BASE

03. POLITICAL INSTABILITY

04. NON-COMPETITIVE POLITICAL SYSTEM

05. SMALL POPULATION GROWTH RATE

06. SMALL POPULATION DENSITY

07. SMALL CHRISTIAN COMMUNITY

08. RECENT NATIONAL INDEPENDENCE

09. LITTLE DOMESTIC VIOLENCE

10. LARGE GNP GROWTH RATE AT FIXED PRICES

11. FEW MILITARY PERSONNEL PER CAPITA

12. LARGE GNP GROWTH RATE

13. SMALL HEALTH EXPENDITURE AS PERCENT OF GNP

14. HIGH PER CAPITA SCHOOL ENROLLMENT

15. HIGH PER CAPITA INTERNAL SECURITY FORCE

16. HIGH ENERGY PRODUCTION

17. MANY ELECTIONS
18. HIGH RATIO OF BLACK MARKET TO OFFICIAL EXCHANGE
19. FEW EXECUTIVE ADJUSTMENTS
20. LOW CRUDE DEATH RATE
21. LITTLE ETHNO-LINGUISTIC FRACTIONALIZATION
22. NEW CURRENCY

TABLE 2.

WEIS CONFLICT AND COOPERATION CLASSIFICATIONS

CONFLICT	
1. REJECT	2.6
2. ACCUSE	2.9
3. PROTEST	2.4
4. DENY	2.2
5. DEMAND	3.4
6. WARN	3.3
7. THREATEN	3.9
8. DEMONSTRATE	3.0
9. REDUCE RELATIONSHIP	3.5
10. EXPEL	3.8
11. SEIZE	4.5
12. FORCE	4.7

COOPERATION	
1. YIELD	3.5
2. APPROVE	2.9

5. PROMISE 3.0

4. GRANT 3.3

5. REWARD 4.5

6. AGREE 3.0

7. REQUEST 2.7

8. PROPOSE 2.8

(THE NUMBERS, NEXT TO THE VARIABLES, ARE THE ADDITIVE WEIGHTS EXPLAINED BELOW)

TABLE 3.

WEIS TOTAL COOPERATION SCORES

1	AFGHANISTAN	5.70
2	ALBANIA	51.30
3	ALGERIA	71.20
4	ARGENTINA	30.70
5	AUSTRALIA	165.20
6	AUSTRIA	53.10
7	BELGIUM	41.80
8	BOLIVIA	22.60
9	BRAZIL	48.60

10	BULGARIA	59.60

****

TABLE 4.

CANONICAL CORRELATIONS FOR 128 STATES

65	LIBYA	.92
61	LEBANON	.90
81	PERU	.88
41	GUATEMALA	.86
108	URUGUAY	.86
104	U.A.R.	.85
125	GUYANA	.84
87	SAUDI ARABIA	.84
96	SYRIA	.81
58	NORTH KOREA	.79
19	CHILE	.77
50	IRAQ	.76
84	PORTUGAL	.74
3	ALGERIA	.72
40	GREECE	.71
95	SWITZERLAND	.71
10	BULGARIA	.69
52	ISRAEL	.69

25	CUBA	.66
106	UNTIED STATES	.66
94	SWEDEN	.65
56	JAPAN	.64
27	CZECHOSLOVAKIA	.64
4	ARGENTINA	.63
83	POLAND	.60
53	ITALY	.60
105	UNTIED KINGDOM	.60
85	ROMANIA	.59
103	U.S.S.R	.59
39	GHANA	.58
6	AUSTRIA	.58
5	AUSTRALIA	.57
109	VENEZUELA	.57
35	FRANCE	.56
7	BELGIUM	.56
113	YUGOSLAVIA	.56
73	NEW ZEALAND	.55
29	DENMARK	.55
37	EAST GERMANY	.55
38	WEST GERMANY	.52
92	SPAIN	.50
15	CANADA	.49
72	NETHERLANDS	.41
91	SOUTH AFRICA	.38

TABLE 5.

RELATIVE STATUS-FIELD THEORY, SOME ANALYTICAL COMPARISONS

1.NO. OF CORRELATIONS 44

2.N OF CORRELATIONS 64

3.RANGE OF CORRELATIONS 92 TO 38

4.EXPECTED CORRELATION .58

5.NO. ABOVE EXPECTED CORRELATION 29.

6.% ABOVE EXPECTED CORRELATION 66.

7.EXPECTED AVERAGE SQUARE .33

8.ACTUAL AVERAGE SQUARE .46

9.AVERAGE SQUARE ABOVE EXPECTED SQUARE .13

10.TOTAL DYADS CONSIDERED 2816

11.COL. SUMS OF SQUARES OF CANONICAL CORRELATIONS 20.03

12.% OF TOTAL VARIANCE OF THEORETICAL MAXIMUM 46%

TABLE 6.

CANONICAL WEIGHTS

3 ALGERIA				.01	-.26	-.15	
.01	.18	.52	-.17	.14	-.19	.04	

				.15	.32	-.13	
.24	-.30	-.59	-.24	-.22	.02	-.11	
				.12	-.01	1.05	
4	ARGENTINA			-.06	-.25	-.14	
.09	.04	-.11	.33	.32	.20	-.40	
				.06	.02	.19	
-.19	-.03	-.25	-.20	.21	-.17	-.10	
				.29	-.20	.91	
5	AUSTRALIA			.02	.08	-.39	
.02	.08	.17	-.22	-.22	.30	-.02	
				.55	.20	-.24	
.22	.05	.15	.07	-.23	-.52	-.06	
				-.19	-.15	1.07	
6	AUSTRIA			-.09	.00	.32	
-.29	.03	.18	-.22	.09	-.25	.30	
				.16	-.20	-.04	
-.27	-.04	-.07	-.03	-.20	-.24	.05	
				-.12	.09	.71	
7	BELGIUM			.13	-.28	-.26	
-.27	-.14	-.24	.34	-.25	.21	-.37	
				-.18	.10	.12	
.05	-.06	.35	.02	-.16	.23	.26	
				.13	-.15	1.04	
10	BULGARIA			-.15	-.32	-.04	
-.34	.25	.24	.22	-.18	-.17	.08	
				.32	.30	.06	

.06 .04 .03 .05 -.20 .30 -.23

-.12 .44 1.08

15 CANADA -.17 -.18 -.04

-.06 -.04 .45 -.05 -.05 .40 -.35

.17 -.27 -.37

-.22 .10 .26 .12 .08 .27 .18

.12 -.20 1.10

19 CHILE .01 -.01 -.23

-.25 -.10 -.17 .39 .35 .14 -.41

-.07 .07 .31

-.12 -.05 -.15 -.11 .15 -.20 -.01

.28 -.28 .96

25 CUBA .14 -.39 -.10

-.11 .35 .25 -.01 -.07 -.34 .21

.40 .25 .17

.08 -.38 -.17 -.09 .07 .08 -.21

-.03 .09 1.03

27 CZECHOSLOVAKIA -.38 -.30 .07

-.36 .17 .18 .06 .04 -.06 .21

.25 .11 .29

.08 .11 -.01 .03 -.12 .38 -.23

-.09 .24 .95

29 DENMARK .06 -.55 -.08

.18 -.02 .28 -.03 .01 .00 .29

.46 .03 -.06

.10 -.38 -.07 -.31 -.13 .14 -.16

				-.10	.11	1.06
35	FRANCE			-.35	-.52	.09
.09	-.21	.13	-.03	-.16	.08	-.05
				-.02	-.05	-.03
.12	-.17	-.21	.17	.12	.20	.07
				-.20	-.10	.73
37	EAST GERMANY			-.10	-.46	-.26
-.17	.22	.25	-.20	-.19	-.29	.08
				.40	.25	-.01
.10	-.22	-.08	.10	-.03	.35	.06
				.15	-.06	1.04
38	WEST GERMANY			-.35	-.39	-.29
-.37	-.21	.38	-.15	.20	.09	.26
				.14	-.28	.09
-.01	-.05	.12	-.32	-.14	-.11	-.15
				-.13	-.10	1.13
39	GHANA			.12	.03	.46
-.31	.26	-.20	-.28	-.08	-.20	-.03
				.08	-.03	.07
.29	.15	.02	.13	.13	.14	.25
				.06	-.23	.85
40	GREECE			.00	-.29	-.13
-.25	.05	.24	-.01	.01	.41	.04
				.35	.05	-.26
-.05	-.18	.24	-.25	-.19	.04	.07
				-.11	-.02	.79

41 GUATEMALA .01 .11 -.10

.24 .17 -.05 .28 .30 -.31 .13

-.10 .09 -.06

-.01 .03 .32 .23 .13 .04 -.29

-.17 .35 .82

50 IRAQ -.13 -.24 -.24

-.12 .27 .06 -.29 .03 .39 .03

.38 -.26 .11

-.23 -.07 .21 .24 .16 .14 -.05

-.29 -.14 1.00

52 ISRAEL -.15 .14 -.03

-.21 .16 .00 -.24 .11 .41 .11

.34 -.35 -.09

-.17 -.15 .00 .16 .17 .09 .04

-.36 .23 .91

53 ITALY -.16 -.53 -.35

.17 -.11 .07 -.26 .02 .14 .56

.29 -.21 -.01

-.17 -.32 .36 -.35 .01 .10 -.08

-.11 -.13 1.43

56 JAPAN .14 -.48 .05

.03 .21 .33 .10 -.18 -.09 .22

.21 .13 .04

-.22 -.31 -.35 -.07 .04 -.06 .13

-.19 -.05 .90

58 NORTH KOREA -.11 -.38 -.15

.03 .39 .22 .01 -.08 -.36 .18

.29 .37 -.06

.10 -.33 -.11 -.22 .06 .17 -.18

.10 .20 1.07

61 LEBANON -.30 -.13 .07

.01 .20 .13 -.54 .08 .46 .19

.35 -.28 -.03

-.28 -.14 .09 .06 .20 .06 .19

-.24 .19 1.02

63 LIBYA -.12 -.10 .13

-.23 .19 .04 -.27 .09 .48 .09

.25 -.15 .00

-.19 -.15 .20 .10 .13 .15 .09

-.31 .29 .87

72 NETHERLANDS .16 -.42 -.36

.24 .21 -.03 .21 .01 .37 .27

-.08 -.09 -.09

.05 .04 .24 -.37 -.56 .24 -.08

.08 -.07 1.11

73 NEW ZEALAND -.37 .15 -.32

.28 .08 -.03 -.24 -.39 .17 -.11

.19 -.02 .12

.19 .05 .11 .29 -.27 -.67 -.23

-.03 .08 1.57

81 PERU -.27 -.03 -.19

-.35 -.12 -.14 .46 .34 .36 -.35

				.00	.00	.53	
-.34	-.05	.00	-.11	.28	-.28	-.07	
				.30	-.27	1.41	
83	POLAND			-.26	-.47	-.08	
-.09	.14	.25	.05	-.11	-.14	-.11	
				.23	.05	.04	
.20	-.32	-.21	-.21	.27	-.12	-.03	
				-.24	.06	.87	
84	PORTUGAL			-.28	.00	-.08	
-.01	.14	-.20	.09	-.23	.18	-.03	
				-.25	-.04	-.05	
.30	-.25	.30	-.15	-.22	.27	-.11	
				.15	.25	.79	
85	ROMANIA			-.18	-.13	-.11	
-.08	.29	.14	-.28	-.07	-.08	.36	
				.47	.25	.00	
-.20	-.41	-.15	-.17	.34	.06	-.07	
				-.06	.05	1.06	
87	SAUDI ARABIA			.00	.04	-.27	
-.03	-.11	.18	-.32	.33	.24	.21	
				-.35	.33	.42	
.35	-.18	-.13	.07	-.10	.09	-.46	
				-.29	-.12	1.35	
91	SOUTH AFRICA			.23	-.13	-.13	
.07	-.03	.12	-.10	.05	-.01	.40	
				.01	.12	.15	

.55 .28 -.20 -.40 .09 .12 -.16

.13 .44 .98

92 SPAIN -.52 -.40 -.33

-.25 -.01 -.15 -.22 .06 -.10 .20

-.12 .12 -.17

.09 -.07 .30 -.06 .40 -.08 -.18

-.10 -.29 1.17

94 SWEDEN -.23 -.42 .07

.06 .05 .30 .14 .00 -.40 -.21

.36 .26 .11

.12 -.18 .11 -.17 -.12 .39 .01

-.01 .28 1.10

95 SWITZERLAND -.14 -.44 -.11

-.44 .15 .12 -.10 -.11 -.22 -.09

.21 .40 .09

.17 .04 -.03 .16 -.01 .22 -.34

-.15 .21 1.04

96 SYRIA -.28 .13 .02

.00 .17 -.03 -.27 .04 .48 .25

.29 -.17 -.11

-.27 -.28 .08 .04 .08 .13 .18

-.30 .14 .94 103

U.S.S.R -.12 -.45 -.19 .02

.23 .27 -.35 -.08 -.11 .06

.13 .15 .20

.03 -.46 -.13 -.17 -.04 .11 .12

-.24 .01 .93 104

U.A.R. -.21 .09 -.18 -.10

-.14 .15 -.37 .27 .24 .14

-.52 .20 .41

.55 -.13 -.16 .03 .00 .02 -.55

-.25 -.04 1.09 105

UNTIED KINGDOM .23 -.64 -.37 .10

-.06 .09 -.15 -.19 .27 .14

.06 -.09 .03

-.01 -.24 .05 .06 -.17 .26 .18

-.05 .21 1.02 106

UNTIED STATES -.03 -.63 .00 .00

.19 .43 .00 -.11 .14 .01

.49 .10 -.08

-.04 -.29 -.15 -.09 -.08 .03 .13

-.15 .17 1.10 108

URUGUAY -.05 -.18 -.01 .17

.14 -.27 .20 .56 -.24 .40

.25 -.01 -.26

-.15 -.24 -.15 -.05 -.16 -.12 .11

.09 -.14 .86 109

VENEZUELA -.10 -.30 .00 .44

.17 -.14 .04 .11 .21 -.18

-.05 -.03 .02

.01 .00 -.24 -.12 -.02 .01 -.20

.22 -.13 .61 113

YUGUSLAVIA			-.15	-.31	-.23	-.01	
.17	-.18	-.21	-.20	.28	.37		
				.23	.21	.20	
.10	-.51	.14	-.17	.11	.52	.08	
				.02	.37	1.08	126
MALAYSIA			-.35	-.15	-.27	.31	
.22	-.18	-.03	-.27	.21	-.17		
				.10	-.17	.32	
-.08	-.25	-.07	.18	-.22	-.06	.14	
				.22	.08	.91	
COLUMN SUM OF SQUARES				1.87	4.62	1.91	
1.93	1.40	2.13	2.22	1.50	3.17	2.52	
				5.02	1.71	1.41	
1.57	2.08	1.62	1.45	1.38	2.20	1.35	
				1.50	1.78		

TABLE 7.

HIGHEST AND LOWEST

WEIGHTS FOR SELECTED FACTORS

01 ECONOMIC DEVELOPMENT

91	SOUTH AFRICA	.25
105	UNITED KINGDOM	.23
72	NETHERLANDS	.16
25	CUBA	.14
56	JAPAN	.14
7	BELGIUM	.13
34	GHANA	.12
29	DENMARK	.06
5	AUSTRALIA	.02
19	CHILE	.01
41	GUATEMALA	.01
3	ALGERIA	.01
106	UNITED STATES	-.03
108	URUGUAY	-.05
4	ARGENTINA	-.06
6	AUSTRIA	-.09
109	VENEZUELA	-.10
37	EAST GERMANY	-.10
58	NORTH KOREA	-.11
63	LIBYA	-.12
103	U.S.S.R	-.12
113	YUGOSLAVIA	-.15
50	IRAQ	-.15

95	SWITZERLAND	-.14
10	BULGARIA	-.15
52	ISRAEL	-.15
53	ITALY	-.16
15	CANADA	-.17
85	RUMANIA	-.18
104	U.A.R.	-.21
94	SWEDEN	-.23
83	POLAND	-.26
81	PERU	-.27
84	PORTUGAL	-.28
96	SYRIA	-.28
61	LEBANON	-.30
35	FRANCE	-.35
126	MALAYSIA	-.35
38	WEST GERMANY	-.35
73	NEW ZEALAND	-.37
27	CZECHOSLOVAKIA	-.38
92	SPAIN	-.52

02 POWER BASE

73	NEW ZEALAND	.15
52	ISRAEL	.14
96	SYRIA	.13
41	GUATEMALA	.11
104	U.A.R.	.09
5	AUSTRALIA	.08
87	SAUDI ARABIA	.04
39	GHANA	.03
19	CHILE	-.01
81	PERU	-.03
53	LIBYA	-.10
61	LEBANON	-.13
85	RUMANIA	-.13
91	SOUTH AFRICA	-.13
126	MALAYSIA	-.13
108	URUGUAY	-.18
15	CANADA	-.18
50	IRAQ	-.24
4	ARGENTINA	-.25
3	ALGERIA	-.26
7	BELGIUM	-.28
40	GREECE	-.29
109	VENEZUELA	-.30
27	CZECHOSLOVAKIA	-.30

115	YUGOSLAVIA	-.31
10	BULGARIA	-.32
58	NORTH KOREA	-.36
25	CUBA	-.38
36	WEST GERMANY	-.39
92	SPAIN	-.40
72	NETHERLANDS	-.42
94	SWEDEN	-.42
105	U.S.S.R	-.43
95	SWITZERLAND	-.44
37	EAST GERMANY	-.46
83	POLAND	-.47
56	JAPAN	-.48
35	FRANCE	-.52
55	ITALY	-.53
24	DENMARK	-.55
106	UNITED STATES	-.63
105	UNITED KINGDOM	-.64

04 NON-COMPETITIVE POLITICAL SYSTEM

109	VENEZUELA	.44
126	MALAYSIA	.31

75	NEW ZEALAND	.28
41	GUATEMALA	.24
72	NETHERLANDS	.24
29	DENMARK	.18
55	ITALY	.17
106	URUGUAY	.17
105	UNITED KINGDOM	.10
35	FRANCE	.09
4	ARGENTINA	.09
91	SOUTH AFRICA	.07
94	SWEDEN	.06
56	JAPAN	.05
58	NORTH KOREA	.05
5	AUSTRALIA	.02
103	U.S.S.R	.02
61	LEBANON	.01
3	ALGERIA	.01
84	PORTUGAL	-.01
113	YUGOSLAVIA	-.01
87	SAUDI ARABIA	-.05
15	CANADA	-.06
85	ROMANIA	-.08
83	POLAND	-.09
104	U.A.R.	-.10
25	CUBA	-.11
50	IRAQ	-.12

37	EAST GERMANY	-.17
52	ISRAEL	-.21
63	LIBYA	-.23
92	SPAIN	-.23
19	CHILE	-.23
40	GREECE	-.25
7	BELGIUM	-.27
6	AUSTRIA	-.29
39	GHANA	-.31
10	BULGARIA	-.34
81	PERU	-.35
36	WEST GERMANY	-.37
27	CZECHOSLOVAKIA	-.38
95	SWITZERLAND	-.44

TABLE 8.

A-SPACE CORRELATIONS WITH SELECTED FACTORS

(NUMBERS, SUCH AS 10, REFER TO FACTOR NUMBERS, SEE BELOW)

CORRELATION OF A-SPACE WITH + WEIGHTS,

ECONOMIC DEVELOPMENT

2 N= 12 P= .0269 R= .6300

CORRELATION OF A-SPACE WITH + WEIGHTS,

POWER BASE

12 N= 8 P= .0473 R= .7100

CORRELATION OF A-SPACE WITH + WEIGHTS,

NON-COMPETITIVE POLITICAL SYSTEM

(NO SIGNIFICANT ASSOCIATIONS)

CORRELATION OF A-SPACE WITH - WEIGHTS,

ECONOMIC DEVELOPMENT

19 N= 30 P= .0072 R= -.4800

CORRELATION OF A-SPACE WITH - WEIGHTS,

POWER BASE

2	N=	34	P= .0006	R= -.5800
5	N=	34	P= .0295	R= -.3700
11	N=	34	P= .0465	R= .3400
13	N=	34	P= .0251	R= .3800
20	N=	34	P= .0181	R= .4000
22	N=	34	P= .0003	R= .6100

CORRELATION OF A-SPACE WITH - WEIGHTS,

NON-COMPETITIVE POLITICAL SYSTEM

5 N= 25 P= .0295 R= .4500

FIGURE 7.

CORRELATIONS, SUMMARY

TYPE OF STATE WITH BIG + WEIGHT,

ECONOMIC DEVELOPMENT

(TENDS TO EXPORT COOPERATION TO THOSE DISTANT)

LARGE POWER BASE

TYPE OF STATE WITH BIG + WEIGHT,
POWER BASE

(TENDS TO EXPORT COOPERATION TO THOSE DISTANT)

LARGE GNP GROWTH RATE

TYPE OF STATE WITH BIG + WEIGHT,
NON-COMPETITIVE POLITICAL SYSTEM

(TENDS TO EXPORT COOPERATION TO THOSE BELOW)

(NO SIGNIFICANT ASSOCIATIONS)

TYPE OF STATE WITH BIG - WEIGHT,
ECONOMIC DEVELOPMENT

(TENDS TO EXPORT MOST COOPERATION TO THOSE CLOSE)

FEW EXECUTIVE ADJUSTMENTS

TYPE OF STATE WITH BIG - WEIGHT,

POWER BASE

(TENDS TO EXPORT MOST COOPERATION TO THOSE CLOSE)

LARGE POWER BASE

SMALL POPULATION GROWTH RATE

MANY MILITARY PERSONNEL PER CAPITA

LARGE HEALTH EXPENDITURE AS PERCENT OF GNP

HIGH CRUDE DEATH RATE

OLD CURRENCY

TYPE OF STATE WITH BIG - WEIGHT,

NON-COMPETITIVE POLITICAL SYSTEM

(TENDS TO EXPORT MOST COOPERATION TO THOSE ABOVE)

HIGH POLITICAL STABILITY

TABLE 9.

F-TEST OF - VS. + WEIGHTS,

ECONOMIC DEVELOPMENT

10 5.2678 .0255

12 4.5598 .0408

22 5.0178 .0289 G MEA 10 1 -.1993 .5721 G MEA 12 1 .1218 -.5708 G MEA 22 1 .5512 -.4900

F TEST OF - VS + WEIGHTS,

POWER BASE

5 5.4165 .0237

7 4.2217 .0459

16 8.5986 .0057 G MEA 5 1 .2745 -.6269 G MEA 7 1 -.0573 .7011 G MEA 16 1 .1686 -.9322

F TEST OF - VS + WEIGHTS,

NON-COMPETITIVE POLITICAL SYSTEM

4 6.0974 .0170 G MEA 4 1 .5211 -.3503

FIGURE 8.

F-TEST OF MEANS, SUMMARY

TYPE OF STATE WITH + WEIGHT,

ECONOMIC DEVELOPMENT

(TENDS TO EXPORT MOST COOPERATION TO THOSE DISTANT)

LARGE GNP GROWTH RATE AT FIXED PRICES

SMALL GNP GROWTH RATE

OLD CURRENCY

TYPE OF STATE WITH - WEIGHT,

ECONOMIC DEVELOPMENT

(TENDS TO EXPORT MOST COOPERATION TO THOSE CLOSE)

SMALL GNP GROWTH RATE AT FIXED PRICES

LARGE GNP GROWTH RATE

NEW CURRENCY

TYPE OF STATE WITH + WEIGHT,

POWER BASE

(TENDS TO EXPORT MOST COOPERATION TO THOSE DISTANT)

LARGE POPULATION GROWTH RATE

SMALL CHRISTIAN COMMUNITY

LOW ENERGY PRODUCTION

TYPE OF STATE WITH - WEIGHT,

POWER BASE

(TENDS TO EXPORT MOST COOPERATION TO THOSE CLOSE)

SMALL POPULATION GROWTH RATE

LARGE CHRISTIAN COMMUNITY

HIGH ENERGY PRODUCTION

TYPE OF STATE WITH + WEIGHT,

NON-COMPETITIVE POLITICAL SYSTEM

(TENDS TO EXPORT MOST COOPERATION TO THOSE BELOW)

COMPETITIVE POLITICAL SYSTEM

TYPE OF STATE WITH - WEIGHT,

NON-COMPETITIVE POLITCAL SYSTEM

(TENDS TO EXPORT MOST COOPERATION TO THOSE ABOVE)

NON-COMPETITIVE POLITICAL SYSTEM

TABLE 10.

GENERAL MODEL, RELATIVE STATUS-FIELD THEORY, TI BEHAVIOR, WORLD SYSTEM

1. WORLD -1.46 -4.44 -1.19

-.70 1.03 1.36 -.55 .19 1.33 .81

2.50 .49 .56

.15 -1.81 .18 -.68 .02 .24 -.60

-.53 .71

FIGURE 9.

SOCIAL FIELD THEORY, SIGN INTERPRETATION OF CONFLICT AND COOPERATION FLOWS WHEN I EXPORTS TO J.

I EXPORTS MOST TO J'S FAR ABOVE I ON THE FACTOR AND LEAST TO J'S

FAR BELOW I ON THE FACTOR WHEN:

- SIGN ON FACTOR ALGEBRAIC DISTANCES.

I EXPORTS LEAST TO J'S FAR ABOVE I OF THE FACTOR AND MOST TO J'S FAR BELOW I ON THE FACTOR WHEN:

+ SIGN ON FACTOR ALGEBRAIC DISTANCES.

TABLE 11.

CONTRIBUTIONS OF THE DISTANCES ON THE FACTORS TO COOPERATION

01 ECONOMIC DEVELOPMENT J'S CLOSE BELOW

02 POWER BASE	J'S CLOSE BELOW
03 POLITICAL INSTABILITY	J'S FAR ABOVE
04 NON-COMPETITIVE POLITICAL SYSTEM	J'S FAR ABOVE
05 SMALL POPULATION GROWTH RATE	J'S FAR BELOW
06 SMALL POPULATION DENSITY	J'S FAR BELOW
07 SMALL CHRISTIAN COMMUNITY	J'S FAR ABOVE
08 RECENT NATIONAL INDEPENDENCE	J'S FAR BELOW
09 LITTLE DOMESTIC VIOLENCE	J'S FAR BELOW
10 LARGE GNP GROWTH RATE AT FIXED PRICES	J'S FAR BELOW
11 FEW MILITARY PERSONNEL PER CAPITA	J'S FAR BELOW
12 LARGE GNP GROWTH RATE	J'S FAR BELOW
13 SMALL HEALTH EXPENDITURE AS PERCENT OF GNP	J'S FAR ABOVE
14 HIGH PER CAPITA SCHOOL ENROLLMENT	J'S FAR ABOVE
15 HIGH PER CAPITA INTERNAL SECURITY FORCE	J'S FAR ABOVE
16 HIGH ENERGY PRODUCTION	J'S FAR BELOW
17 MANY ELECTIONS	J'S FAR ABOVE
18 HIGH RATIO OF BLACK MARKET TO OFFICIAL EXCHANGE	J'S FAR BELOW
19 FEW EXECUTIVE ADJUSTMENTS	J'S FAR BELOW
20 LOW CRUDE DEATH RATE	J'S FAR ABOVE
21 LITTLE ETHNO-LINGUISTIC FRACTIONALIZATION	J'S FAR ABOVE
22 NEW CURRENCY	J'S FAR BELOW